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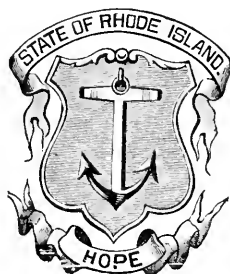


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TENTH ANNUAL REPORT
OF THE
STATE BOARD OF HEALTH,
OF THE
STATE OF RHODE ISLAND,
FOR THE YEAR ENDING DECEMBER 31, 1887,
AND INCLUDING THE REPORT UPON THE REGISTRATION OF
BIRTHS, MARRIAGES AND DEATHS IN 1886.



PROVIDENCE:
E. L. FREEMAN & SON, STATE PRINTERS.
1888.

ALBANY
VETERINARY
VETERINARY

MEMBERS

OF THE

RHODE ISLAND STATE BOARD OF HEALTH.

DECEMBER 31, 1887.

	<i>P. O. Address.</i>
HENRY E. TURNER, M. D., <i>Chairman</i>	NEWPORT.
SAMUEL M. GRAY, C. E.....	PROVIDENCE.
HENRY W. ROSE, M. D.....	WESTERLY.
ALBERT G. SPRAGUE, M. D....	RIVER POINT.
THOMAS H. SHIPMAN, M. D....	BRISTOL.
PAUL S. REDFIELD, M. D.....	PROVIDENCE.
CHARLES H. FISHER, M. D., <i>ex officio, Secretary</i>	PROVIDENCE.

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To the Honorable the General Assembly of the State of Rhode Island :

Herewith is respectfully presented the Tenth Annual Report of the State Board of Health, in compliance with Sec. 9, Chap. 83, of the Public Statutes.

The Report is for the year ending December 31st, 1887, and presents in part the general proceedings of the Board and the work performed under its supervision ; and is wholly included in the report of the Secretary, which will be found in the following pages, and is respectfully submitted.

The term of office of Dr. Geo. W. Jencks having expired by limitation, Dr. Paul S. Redfield was appointed by the Governor as his successor. Otherwise the personnel of the Board remains the same.

As usual, the Report of the Secretary upon the births, marriages and deaths in the State during the previous year will be found included.

H. E. TURNER, *President.*

C. H. FISHER, *Secretary.*

April 2, 1888.

REPORT OF THE SECRETARY.

Gentlemen of the Board:

In repetition of some parts of the various reports made at the different meetings of the Board during 1887, and of which the newspaper press gave more or less extended accounts at the time, allusions will be made only in brief to proceedings which may be of continued interest to the general public.

It is hardly necessary to remark, as you have frequently had cognizance of the fact, that continued effort has been made on the part of the Secretary, without stint from inconvenience or labor, to obtain the fullest and most complete returns of births, marriages and deaths from every locality in the State.

There has been increased, and in some counties unexceptionable, promptness on the part of physicians, undertakers and canvassers in making such returns, and it can be questioned if, in any State or country in America, they are equally complete.

The report upon the registration of the vital movements of the people during 1886, which was prepared during 1887, and which, in the assorting and classifying of the various items of fact contained in each of the nearly twenty thousand separate individual descriptions, relating to the births, marriages and deaths in the entire State during that year, required, in the different modes of arrangement, tabulation and comparison, and in the computation of the various relative proportions, the systematic placing or noting of more than 720,000 numbers representing those facts. If that number be divided by the number of working days in the year, it will give some conception of the amount of labor required in the preparation of the report, independent of the comments, which comprise about one-half of the volume, not including summaries and tables.

The number of nuisances believed to be prejudicial to health, to which the attention of the Secretary was called during 1887, was larger than during the previous year. It is clearly evident that a sentiment or conviction of the necessity of cleanliness, as a means of the promotion and preservation of health, is surely, though slowly, acquiring a fixed existence in the mind of the average citizen and in the majority of locations. Probably cleanliness of surroundings, both of inside and outside premises, is a growing sentiment from cultivated

taste and habit, may be partly the offspring of self-respect and pride, and may be partly the offspring of imitation; but independent of such influences, there is a more practical and sensible sentiment, born of thought and judgment, which regards cleanliness and purity, of the person as well as of surroundings, as one of the most efficient means of securing the best health and the highest degree of happiness.

The majority of the nuisances abated during the year by the advice of the Secretary were cases in which, as stated by the owners or occupants of the premises, there was an almost entire misapprehension as to the dangers which threatened the general public by the conditions existing under their control.

The large nuisance in the town of Middletown, caused by the accumulation in large mounds and by the broadcasting over large areas of land of decomposed swill, and the occurrence at the Conanicut Park Hotel* of the pollution of the water supply (and which it is believed caused the death of some persons), had at the times of their examination such extended notice in the newspapers of the State and the circumstances connected therewith reported so fully in detail, that further notice seems uncalled for.

Of the labor performed in the department of the Cattle Commission, and the general condition, as regards the health of the most useful of the domestic animals of the State, an account will be found in the body of the report.

In regard to the amount and kinds of sickness which had prevalence in the State during 1887, the reports of health officers and physicians will present a very full account, and the reports of health officers and town clerks will give the public improvements which have been made in the different municipalities that have a sanitary bearing and are designed to have a salutary influence on the public health.

The Act in amendment of Chapter 84 of the Public Statutes, defining more clearly the powers and duties of the Board in relation to the contagious and infectious diseases of domestic animals, framed by the Secretary with the consent of the Board, was passed at the January Session of the General Assembly. So also the Act in relation to contagious pleuro-pneumonia, proposed by the U. S. Commissioner of Agriculture, which had been approved by the Board.

The report upon the pollution of Providence river and tributaries will be found in the Secretary's report, not having been previously given to the public.

* Now entirely changed and in a good sanitary condition.

HEALTH OF THE STATE, 1887.

REPORTS OF PREVALENT ACUTE DISEASES.

An examination of the reports of the medical correspondents will show that there has been a greater prevalence of zymotic diseases during the current year than in the preceding. In some localities there have been serious epidemics; but they were chiefly confined to the cities and the villages more or less thickly populated. In the northern part of the State, however, especially in the town of Lincoln, intermittent fever lingers with the persistence of an epidemic disease. Reports from that quarter show an increase in the number of malarious patients. The towns of Newport County still enjoy a remarkable immunity from contagious diseases; while the city of Newport itself, notwithstanding the usual influx of five or six thousand summer visitors during the past season, presented but the average number of fatalities. This part of our State is, perhaps, one of the healthiest to be found, and fully maintains its widespread reputation for the possession of one of the most salubrious climates in the world.

From the reports of the several town clerks, we are enabled to present to the reader all the progress in sanitary matters for the year. East Greenwich and Barrington now have water supplies of their own, so that they are less dependent upon the precarious and dangerous modes of supply by means of wells and cisterns; while other towns, heretofore but partially furnished with water, have more largely availed themselves of their privileges. The sewerage in some towns has been greatly improved, often through private enterprise. There seems to be a gradual enlightenment relative to the importance of adopting the necessary means for preventing disease and securing the health of the community. The town councils of East Greenwich, North Providence, Woonsocket, Charlestown and North Kingstown have passed improved ordinances to abate nuisances and to prevent

the spread of contagious distempers in their respective towns. Some of these orders are really of an elaborate character. Providence is still the pioneer in these matters, and passed an ordinance at the end of the summer which forbids public funerals of those dying of certain virulent and contagious diseases,—a measure the necessity of which has been much felt and the Secretary has long advocated.

In consequence of the outbreak of typhoid fever during the summer at a hotel on Conanicut Island, which was directly traced to the escape of sewage from a defective drain-pipe into the water supply, and caused several deaths among those affected, an official investigation of the premises was made by the Board and a bill drawn up for the correction and prevention of any such occurrences in the future, to be presented to the General Assembly for passage at the January Session of 1888. It was hoped that this would ensure the health and comfort of all inmates of hotels and boarding houses throughout the State. If passed, it would be the first public recognition of the kind by the State.

The usual discussion of the zymotic diseases, as they have prevailed in various parts of the State during the current year, will be presented in their proper order.

CHOLERA INFANTUM.

This most fatal disorder among children is still confined almost exclusively to our larger villages and our cities in its season. It was reported as being quite severe in Warwick, in the neighborhood of certain factory villages. In Warwick at large, and the rest of the State, there was but small prevalence of cholera infantum. Even in Providence no increase in the number of cases of this disease was observed. It was generally of a very mild character everywhere.

CROUP.

During the year there has been a slight diminution in the prevalence of croup as compared with the last year or two. If we except the years 1876 and 1881, deaths by this disease have never reached a hundred. These dates mark the limits of two fluctuations of this disease; two flowing and ebbing tides of it, so to speak. We are now again upon an upward movement of this affection, but whether we have reached the highest point or not, is a question of time. We are as yet unable, from the meagreness of our statistics, to frame any law relative to its movements. The only towns where it was reported

as unusually severe were Lincoln, Cumberland, in the village of Valley Falls, and Richmond.

DIPHTHERIA.

Diphtheria and croup, under the name of diphtheritic croup, have been, and are still, so often confounded that it is sometimes quite difficult to learn which of the two diseases is in the ascendant. Since 1875, however, cases of diphtheria have far exceeded those of croup; and for the last eleven years (counting from 1876) deaths by this disease have out-numbered those by croup by more than two to one. According to the reports from medical correspondents, diphtheria appears to be upon the increase in nearly all parts of the State. Barrington and Warren were considerably, Bristol but slightly, affected. Occasionally cases were observed throughout Kent County. There were less deaths by this disease in the city of Newport this year than were reported the year previous. If we except Burrillville, we find that it was very prevalent, and even epidemic, in the other towns of Providence County. In short, it was never known to be so rife before in Cumberland and Lincoln. Here it began in August and continued throughout the year, being most severe in the months of September and October, when it became an epidemic. East Providence, Johnston, North Providence and Cranston suffered severely. After November, it prevailed largely in Pawtucket, considerably in Woonsocket. In the city of Providence the epidemic was very severe, the deaths there numbering more than any year since 1881. It was also of a very malignant type at Carolina Mills in the towns of Charlestown and Richmond; of mild character in North and South Kingstown, except in the village of Hamilton in the former township, where it was more than ordinarily severe; in Westerly, almost epidemic, and rather malignant.

DIARRHŒA AND DYSENTERY.

The diarrhœal diseases do not appear to have been anywhere epidemic. Most of the towns report few or no cases. Few deaths comparatively resulted. The town where the greatest prevalence of these affections were noticed were Johnston, Exeter, North Kingstown, East Greenwich and Westerly. In East Greenwich the number of cases was large. In Providence the disease was less prevalent than common. But here diarrhœa was the more general disease; while in some of the other towns, not densely populated, dysentery of a mild character predominated.

INTERMITTENT FEVER.

Rhode Island is still grappling with the erratic and obstinate affection known as malarial fever. It yet lingers upon the borders of the towns of Bristol County, with a slight increase of cases in Barrington. The same may be said in regard to its prevalence in the town of East Providence. As yet it has shown but little disposition to spread eastward. It, however, travels northward, with but a trifling inclination towards the west. It has now fully established itself in Burrillville and Glocester, but there near their eastern boundaries. Coventry has a few cases of it now, but these may be only imported cases. Last year it first made its appearance as far northwest as this. In Washington County we note few but imported cases. Charlestown and Richmond are now entirely free from intermittent fever, where, curiously enough, it never was strongly intrenched. Westerly has a sprinkling of cases, but they are nothing compared with the number there a few years ago. But it is to the northeast and northwest of the city of Providence where our malarial visitor is becoming still more unmanageable, particularly in Lincoln and Cumberland. According to the report of a competent correspondent practicing in these towns, it has never been so rife there, especially in the villages of Berkeley, Lonsdale and Valley Falls, which, it will be remembered, are situated on the Blackstone river and lie directly in the path of the disease. Providence itself suffered still and had many severe cases. Deaths from this disease appear to be upon the increase. Admitting that some deaths may have been attributed to it from errors in diagnosis, as is common during an unusual prevalence of certain affections, this conclusion is none the less true. In the city of Providence alone there were twenty-eight deaths from malarial fever to eleven in 1886; only six deaths less than were reported throughout the State in 1885. This number (28) is thus an increase of seventeen over the number of the deaths reported in 1886, and only fifteen less than in the whole State for the same year. There is indubitable proof that the affection is accompanied by a gradual, but certain, increasing fatality. From 1879 and 1880, when only two and three deaths, respectively, from remittent fever were reported (and all these perhaps, except one or two in 1880, importations), to the end of this year, there has been a very evident rise in the percentage of deaths. After the year 1882, the increase each year, in the whole State, has been nearly twenty-five per cent., and in Providence alone upwards of forty per cent. We can only estimate the percentage of deaths during

the present year, as no returns came in, except for the city of Providence. Fortunately, we thus far have not had to deal with an epidemic attended with so great a fatality as accompanied its outbreaks in the past century.

MEASLES.

Measles was not epidemic except in the village of Natick in Warwick; at Providence, where the number of deaths was the largest ever known in a single year; and at Kingston and Wakefield, in the township of South Kingstown. The disease, as manifested in the city of Providence and in South Kingstown, was attended with unusual complications of diseases and fatality. In Johnston the outbreak was severe; in Newport ten per cent. died of those affected. Elsewhere there was mostly no outbreak at all.

SCARLET FEVER.

Rhode Island has never been wholly exempt from scarlatina. After a period of quiescence, somewhat shorter than has been observed in the case of diphtheria, scarlet fever breaks out with more than usual violence, accompanied by a corresponding greater fatality. We seem now to have reached one of these severe scarlatinal outbreaks. We have had no severe visitation of this malady since the years 1879 and 1880, in the last of which it reached its height. The present epidemic first made its appearance as such in 1884, at Westerly, where it remained parts of two years. In 1886 it became epidemic in the towns of Glocester, Scituate and South Kingstown; still largely prevailing in two or three other towns, and lessening in severity in Westerly. The present year it disappeared partially or wholly from some towns and advanced to others. Bristol was the only town in the county where it threatened to become epidemic. Coventry and Warwick were the only towns of Kent County where the disease broke out with virulence. In the former town, at certain factory villages, it was of an extremely fatal character. It prevailed to a considerable extent in East Providence, Johnston, North Providence and North Smithfield. Perhaps the city of Providence and the town of Woonsocket, especially the village, suffered most; the towns to the extreme west and south of the State, the least. We cannot, as yet, judge whether the epidemic is upon the wane. Perhaps it has reached its height in those places suffering from it the most severely.

TYPHOID FEVER.

The State may congratulate itself on its great freedom from enteric fever during the year. Except in Warwick, Scituate and at Conanicut Park in Jamestown, in one hotel, we have been comparatively free from the disease. Sanitary measures have undoubtedly much to do with this exemption.

WHOOPIING COUGH.

Among the diseases incident to infancy, whooping cough has seldom caused the deaths that others have. It was but slightly prevalent with us during the year. It was epidemic solely in Warwick at the village of Natick. Providence and Newport had the greatest number of cases; Providence twelve deaths, Newport two only. From the various reports we may consider the disease generally mild throughout the State. Concerning its contagiousness, we are unable to speak with certainty. Certainly every precaution should be taken for its prevention.

SECRETARY'S REPORT.

HEALTH IN THE TOWNS.

COMPARATIVE PREVALENCE

OF TWELVE IMPORTANT ACUTE DISEASES IN THE TOWNS.

The following four Tables will present the varying phases of the prevalence of twelve acute diseases of importance, as causes of death during the four years 1884—1887.


In these tables the appearance of the most important of the common contagious diseases, with a few others not contagious, may be traced as they occurred in the different towns, with different degrees of prevalence from year to year.

The relative mortality from that class of diseases styled zymotic corresponds, in a majority of instances, with the increased extent of prevalence of such diseases.

Comparative prevalence of twelve important acute diseases during 1884.

TOWNS.	Bronchitis.	Cholera Infantum.	Croup.	Diphtheria.	Diarrhoea and Dysentery.	Fever, Typhoid.	Fever, Malarial.	Measles.	Pneumonia.	Rheumatism.	Scarlatina.	Whooping Cough.
Barrington.....	||	||	|	|	|	*	+	|	||	+	||	|
Bristol.....	||	||	|	|	|	|	+	|	||	||	+	|
Warren.....	||	||	|	|	|	|	||	|	||	||	|	|
Coventry.....	||	||	|	|	+	|	:	+	||	+	|	:
East Greenwich.....	||	||	|	|	|	|	|	|	||	||	|	|
West Greenwich.....	||	||	|	|	|	|	|	|	||	||	|	|
Warwick.....	+	||	+	:	|	|	|	*	||	||	||	|
Jamestown.....	||	||	|	|	|	|	|	|	||	||	||	|
Little Compton.....	||	||	|	|	|	|	|	|	||	||	||	|
Middletown.....	||	||	|	|	|	|	|	|	||	||	||	|
New Shoreham.....	||	||	|	|	|	|	|	|	||	||	||	|
Portsmouth.....	||	||	|	|	|	|	|	|	||	||	||	|
Tiverton.....	||	||	|	|	|	|	|	|	||	||	||	|
Newport City.....	||	||	|	|	|	|	|	|	||	||	||	|
Burrillville.....	||	||	|	|	|	|	|	|	||	||	||	|
Cranston.....	||	||	|	|	|	|	|	|	||	||	||	|

Cumberland.....	*	|	:	0	|	||	0	0	||	0	:	0	||	+	0	+	|	0	*	+
East Providence.....	||	||	0	||	+	||	|	|	+	+	||	+	+	:	|	|	||	|	:	*
Foster.....	||	+	||	||	||	|	+	+	|	+	+	+	+	|	+	||	||	+	||	||
Glocester.....	|	+	||	+	||	|	+	||	|	+	||	||	+	|	|	|	|	+	|	+
Johnston.....	:	|	+	0	|	:	|	0	+	|	0	0	||	0	0	0	0	0	0	0
Lincoln.....	*	||	:	0	+	+	+	|	+	+	+	+	||	|	0	|	|	:	|	||
North Providence.....	|	+	|	||	||	|	||	||	||	||	||	||	+	|	|	|	||	||	||	|
North Smithfield.....	|	|	|	||	|	||	||	||	||	||	||	||	|	+	|	||	||	||	||	+
Pawtucket.....	+	||	:	||	|	||	||	:	+	|	|	:	||	|	:	|	|	:	|	:
Scituate.....	+	|	:	:	|	|	:	|	+	|	|	||	:	|	:	|	|	:	|	|
Smithfield.....	|	||	|	|	+	||	|	||	||	||	||	||	+	|	|	|	||	||	|	:
Woonsocket.....	+	||	|	|	||	||	||	||	||	||	||	||	||	||	||	||	||	||	||	||
Providence City.....																				
Charlestown.....																				
Exeter.....																				
Hopkinton.....																				
North Kingstown.....																				
South Kingstown.....																				
Richmond.....																				
Westerly.....																				

 The signs or characters used in the above Table indicate the degrees of prevalence of the diseases named, as follows: The * indicates an epidemic prevalence; the sign + a large prevalence; the sign = a moderate prevalence; the sign — a small prevalence; the dots a *very* small prevalence; and the 0 no prevalence according to the returns.

Comparative prevalence of twelve important acute diseases during 1885.

TOWNS.	Bronchitis.	Cholera Infantum.	Croup.	Diphtheria.	Diarrhoea and Dysentery.	Fever, Typhoid.	Fever, Malarial.	Measles.	Pneumonia.	Rheumatism.	Scarlatina.	Whooping Cough.
Barrington.....	||	|	0	|	|	|	+	|	+	|	|	:
Bristol .....	||	|	|	|	|	|	:	* 0 + :	+	|	0	|
Warren .....	||	||	|	|	|	|	:	0	+	|	0	:
Coventry.....	||	||	|	|	+	|	:	0 * 0	+	||	|	0
East Greenwich.....	||	+	|	|	+	|	:	0	||	+	|	:
West Greenwich.....	||	|	|	|	+	|	:	||	||	||	|	||
Warwick.....	||	|	|	|	||	||	||	||	||	||	|	||
Jamestown.....	||	|	|	|	||	||	||	||	||	||	|	||
Little Compton.....	||	+	|	0	||	||	||	||	||	||	:	||
Middletown.....	+	+	|	0	||	||	||	0	||	||	0	0
New Shoreham.....	+	:	|	|	||	||	||	0	||	||	0	0
Portsmouth.....	||	:	|	|	||	||	||	0	||	||	0	0
Tiverton.....	||	||	|	|	||	||	||	0	||	||	0	0
Newport City.....	+	||	|	|	||	||	||	0	||	||	0	0
Burrillville .....	+	|	|	|	||	||	||	0	||	||	0	0
Cranston.....	||	|	0	|	|	||	||	0	||	||	0	0

Cumberland.....	:	+	||	*	:	|	:	+	:	0	:	*	+	|	:	:	0	:	:	:
East Providence.....	:	|	0	0	|	:	|	:	+	0	:	|	||	||	:	:	:	|	:	*
Foster.....	||	|	||	||	||	||	+	|	||	||	||	|	||	||	|	|	|	|	||	||
Glocester.....	|	0	||	+	+	|	+	||	||	||	|	||	+	||	||	||	|	||	||	||
Johnston.....	0	|	|	|	|	0	|	||	+	0	0	|	||	||	0	0	:	0	0	:
Lincoln.....	+	|	0	0	+	+	||	|	+	|	|	+	||	||	0	|	|	:	|	||
North Providence.....	||	||	:	||	||	||	||	||	|	||	|	||	|	|	|	|	|	|	|	||
North Smithfield.....	|	|	||	|	||	||	||	||	|	||	|	||	|	||	|	||	||	||	||	||
Pawtucket.....	:	+		0	+	:				+					:					:
Scituate.....		+	:	0	+					0	:			:	:					:
Smithfield.....			:	0										0						
Woonsocket.....				+					+		+		+	+						
Providence City.....																				
Charlestown.....																				
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Hopkinton.....																				
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Barrington.....	+				+		+		+			
Bristol.....								:			:	
Warren.....								:			:	
Coventry.....								:			:	
East Greenwich.....								:			:	
West Greenwich.....								:			:	
Warwick.....								:			:	
Jamestown.....								:			:	
Little Compton.....								:			:	
Middletown.....								:			:	
New Shoreham.....								:			:	
Portsmouth.....								:			:	
Tiverton.....								:			:	
Newport City.....								:			:	
Burrillville.....								:			:	
Cranston.....								:			:	

Cumberland.....	|	|	*	+	|	|	:	|	*	:	:	+	|	:	:	:	*	|	+	
East Providence.....	|	|	0	0	||	|	:	||	0	0	|	|	:	0	0	|	+	:	||	
Foster.....	||	||	||	|	||	||	||	||	||	||	||	|	+	+	+	||	||	+	+	
Glocester.....	|	||	||	||	+	|	|	||	||	+	||	||	||	+	||	||	||	||	||	
Johnston.....	0	:	0	0	||	0	:	:	:	*	|	|	+	0	*	+	0	0	|	0
Lincoln.....	*	*	:	:	+	+	|	||	+	+	|	+	||	:	0	|	:	:	:	||
North Providence.....	:	|	|	0	||	:	|	|	||	||	|	|	||	:	|	|	|	:	|	|
North Smithfield.....	|	:	||	||	+	|	|	||	||	||	|	||	||	||	||	+	||	||	||	
Pawtucket.....	|	||	|	|	||	+	|	||	||	:	||	||	||	||	||	||	||	:	:	
Scituate.....	0	|	|	0	||	:	|	||	|	|	|	||	||	||	|	:	:	|	:	
Smithfield.....				0														:		
Woonsocket.....				0										:	:				:	
Providence City.....		+			+															
Charlestown.....																				
Exeter.....																				
Hopkinton.....																				
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TOWNS.	Bronchitis.	Cholera Infantum.	Croup.	Diphtheria.	Diarrhea and Dysentery.	Fever, Typhoid.	Fever, Malarial.	Measles.	Pneumonia.	Rheumatism.	Scarlatina.	Whooping Cough.
Barrington.....	|	|	|	:	|	:	+	|	|	|	+	|
Bristol.....	|	|	|	|	|	:	:	0	|	|	0	0
Warren.....	|	|	|	|	|	:	0	0	|	|	0	0
Coventry.....	|	|	|	|	|	:	0	0	|	|	0	0
East Greenwich.....	|	|	|	|	|	:	0	0	|	|	0	0
West Greenwich.....	|	|	|	|	|	:	0	0	|	|	0	0
Warwick.....	+	:	:	:	+	+	0	*	|	+	*	:
Jamestown.....	|	:	:	|	|	:	0	|	|	|	:	0
Little Compton.....	|	:	:	|	|	:	0	|	|	|	:	0
Middletown.....	|	:	:	:	|	:	0	|	|	|	:	0
New Shoreham.....	|	:	:	:	|	:	0	|	|	|	:	0
Portsmouth.....	|	|	|	|	0	:	0	0	|	|	0	0
Tiverton.....	|	|	|	|	|	:	0	0	|	|	0	0
Newport City.....	|	|	|	|	|	:	0	0	|	|	0	0
Burrillville.....	|	|	|	|	|	:	0	0	|	|	0	0
Cranston.....	|	|	|	|	|	:	0	0	|	|	0	0

ANNUAL REPORTS OF MEDICAL CORRESPONDENTS.

The plan of obtaining from the regular medical correspondents of the Board, and other physicians, as in previous years, of a report at the commencement of each year, covering, in a general way, the whole of the preceding year, in relation to the amount of sickness of all kinds, the prevalence of particular diseases, and the sanitary conditions and movements in their respective localities, has been continued and the following circular sent therefor as usual.

CIRCULAR NO. 77.

OFFICE OF SECRETARY OF THE STATE BOARD OF HEALTH.

PROVIDENCE, Jan. 1, 1888.

The Secretary of the State Board of Health desires to obtain from all respectable physicians in every section of the State an Annual Report covering the whole twelve months preceding the above date.

The following questions will indicate the information sought and the general plan of such report ; but correspondents need not be confined to precise replies to the questions presented, all the freedom being allowable of such modifications and additions as the circumstances or peculiarities of each locality may seem to warrant.

These annual reports are desired for the purpose of presenting the status of the public health and the sanitary conditions and sentiment existing in the different sections of the State, during the year 1887, in the Tenth Annual Report of the State Board of Health.

They should be returned to the Secretary of the Board by the second week in February.

Any additional postage stamps needed to cover postage on more extended consideration of the topics suggested, or any other topic having relation to the public health, will be immediately refunded on the receipt of papers.

QUESTIONS.

1. Name of Physician.

M. D.

2. Name of town and circuit.

3. Taking sickness of all kinds, has there been more or less than usual in your circuit the past year? How much?

4. Which of the following zymotic diseases have prevailed in your circuit during the past year? Please state when sporadic and when epidemic, whether mild, average or severe, and in what months they occurred, and in what localities?

a. Cholera Infantum.

b. Croup.

c. Diarrhea and Dysentery.

d. Diphtheria.

e. Fever, Malarial.

f. Fever, Typhoid.

g. Measles.

h. Scarlatina.

i. Small Pox.

j. Whooping Cough.

5. Any other zymotic disease becoming epidemic.

Also, please state what degree of prevalence, whether large, average or small, and if above average, in what months was the large occurrence, of the following named diseases. State degree of prevalence and time of occurrence under the headings following:

Degree of	
PREVALENCE.	MONTHS.

k. Brain, Inflammation and
Congestion of

l. Bronchitis, Acute.

m. Meningitis, Cerebro Spinal.

n. Pneumonia.

o. Rheumatism.

p. Stomach, Acute Diseases of

6. What diseases, not classed as zymotics, have had unusually large prevalence during the past year?

7. What diseases have been attended with unusual fatality?

8. Have any circumstances occurred within your observation or knowledge that seemed to indicate that Scarlet Fever, Diphtheria or Typhoid Fever had been taken or communicated from one person to another? A full history of known facts in detail should be given. Such history need not be confined to any particular year. State on separate sheet.

8. Has there been, in your opinion, any advance in public sentiment or views of individuals, in your circuit, in regard to the importance of sanitary surround-

ings; or any increased interest in means of preventing diseases? State what reasons for belief.

Very respectfully,

CHAS. H. FISHER,

Sec. of State Board of Health.

The following extract from the Public Statutes in relation to the duties of town and local boards of health and practicing physicians, was also appended :

PUBLIC STATUTES, CHAPTER 83.

SEC. 6. The secretary of the said board shall make inquiry from time to time, of the clerks of town and local boards of health and PRACTICING PHYSICIANS, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease, or causes of general ill health, and also in relation to the proceedings of the said boards of health, in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals in their several towns and localities respectively, and the said clerks of town and local boards of health, and the said PRACTICING PHYSICIANS shall give such information, in reply to said inquiries, of such facts and circumstances as shall have come to their knowledge.

IN REPLY TO THE FOREGOING CIRCULAR.

The following reports, received from local correspondents of the medical profession in the several cities, towns and villages of the State, will give a good representation of the general status of the public health during the year 1887, as to the presence or absence of epidemics or endemics or large prevalence of important or unusual diseases in the several locations, the sanitary conditions and improvements, if any, in their several circuits, and other suggestions in response to the preceding circular :

BRISTOL COUNTY.

2. BRISTOL.

3. No diseases very fatal or very serious have prevailed to an unusually large extent in this town during the last year. Taking sickness of all kinds, there has been the same as usual in my circuit.

4. The following zymotic diseases have prevailed during the year :

Cholera Infantum. A few sporadic cases. Mild.

Croup. Occasional through the year. Mild.

Diarrhea and Dysentery. A few cases, but none severe. Mostly in summer.

Diphtheria. Very few cases; some fatal. Winter months. Sporadic.

Fever, Malarial. Small amount.

Fever, Typhoid. Less than the average in previous years, and mild. Sporadic.

Measles. About the average number of cases.

Scarlatina. A few fatal cases. Malignant. Sporadic. Fall months.

Whooping Cough. Very few cases.

5. No diseases becoming epidemic.

Diseases not zymotic as follows :

Brain, Inflammation and Congestion of. Very small prevalence.

Bronchitis, Acute. About the average number. Winter and spring months.

Meningitis, Cerebro Spinal. None to my knowledge.

Pneumonia. Scattered cases. Mild.

Rheumatism. Average amount. No particular season.

Stomach, Acute diseases of. Few cases. Warm months.

6. No diseases have had unusually large prevalence.

7. Ten cases of scarlet fever. Malignant. Sporadic.

9. Very little if any advance in public sanitary sentiment.

T. H. SHIPMAN, M. D.

2. BRISTOL.

3. Taking sickness of all kinds, I should think there had been rather less than usual in this circuit during the past year. Perhaps about ten per cent.

4. The following zymotic diseases have prevailed :

Diarrhea and Dysentery. A few mild cases in August and September.

Diphtheria. I have had but two cases. One in February, mild ; and one malignant in December.

Fever, Malarial. Malarial fever and malarial complications in other diseases are on the increase.

Fever, Typhoid. Few mild cases through the autumn.

Scarlatina. Scarlet fever appeared in September and promised to be epidemic, but prompt action by the board of health prevented this. Cases, seven.

5. No disease epidemic.

Other diseases :

Pneumonia. Average number. February, March.

Rheumatism. Average number and severity. November until May.

6. No unusually large prevalence of any disease during the year, except scarlatina.

7. No diseases have been attended with unusual fatality.

9. Some advance in public sentiment and views of individuals, shown in regard to the importance of sanitary surroundings, owing to the results obtained in the attempt to confine and restrict scarlatina.

G. A. PIKE, M. D.

2. BRISTOL.

3. There has been about the usual amount of sickness during the past year.

Diseases have prevailed as follows :

Diarrhea and Dysentery. Some cases of diarrhea quite severe, among adults as well as children, in summer months. Sporadic.

Diphtheria. For the most part severe. Sporadic. October and November.

Fever, Typhoid. A few mild cases in the summer and early fall.

Scarlatina. Number of cases not very great, but has appeared in almost every quarter of the town. Type, moderate to severe—more of the latter.

5. No zymotic disease epidemic.

Bronchitis, Acute. Average of other years. Winter and spring.

Meningitis, Cerebro Spinal. None.

Pneumonia. Average number. Different cool months.

Rheumatism. Average prevalence through the year.

6. No diseases have had unusual large prevalence during the past year except scarlatina.

7. The diseases attended with unusual fatality were diphtheria and scarlatina.

8. In relation to circumstances within my knowledge that seemed to indicate that scarlet fever, had been communicated from one person to another see appended paper.

9. Houses where contagious diseases existed have been placarded, and in some cases a guard mounted to prevent ingress and egress.

H. S. SWAN, M. D.

In the winter of 1883-4 the first case of scarlet fever in town was that of a child of L., who was taken sick while returning from New York, where she had been visiting. L.'s house was at a distance from the thickly settled part of the town and no other house was in proximity to it. Three other members of the same family were attacked by the disease in a few days. Members of the family of J. D., a neighbor, assisted in nursing them ; and, so far as the writer can learn, no other persons went to the house. A son of J. D.'s was soon down with the fever, this being the second family in which it occurred. On the 14th of February, a son of J. A. was taken sick, making the third family in which the disease appeared.

J. A. lived in the thickly settled part of the town and about a mile from the other two families. The only known exposure was as follows : J. D. supplied the family of J. A. with milk, the son of J. D., who had the fever, delivering it except that for about a week during his illness, a son of L., in whose family the fever first occurred, carried the milk for him.

When J. D.'s son resumed his duties, three or four days before J. A.'s son became sick, he was met at the door by the wife of J. A., who noticed that his hands and arms were peeling. To her he denied having had the fever, but acknowledged that he had milked the cows within the time that L.'s son had been delivering the milk in his place.

Two other children of J. A. were attacked in a few days. The boys who brought the milk never entered J. A.'s house nor did any of the children ever take the milk from them or see them at the door. The connection between the cases must have been either through the milk contaminated during milking by scales of epidermis dropping into the pail or through the clothing of those who took the milk in at the door.

On the same day, February 14th, scarlet fever appeared in two other families, both supplied by J. D. with milk, delivered by the same boys.

H. S. S.

Bristol, Feb. 13, 1888.

2. WARREN, BARRINGTON AND EAST PROVIDENCE.

3. Taking sickness of all kinds, there has been a small percentage more than usual in this circuit during the past year.

The zymotic diseases prevailing during the past year are as follows :

Cholera Infantum. Average. Summer. Sporadic.

Croup. Average. Winter. Sporadic.

Diarrhea and Dysentery. Average prevalence. Usual season.

Diphtheria. Rather an increased percentage ; average severity. Winter months.

Fever, Malarial. Average in Warren. Perhaps a trifle increase in Barrington and western East Providence.

Fever, Typhoid. Less in my practice.

Measles. A few sporadic cases, average severity.

Scarlatina. A few sporadic cases, average severity. November and December.

Whooping Cough. None.

5. No zymotic disease epidemic.

Diseases not zymotic :

Bronchitis, Acute. Average prevalence. Colder months.

Meningitis, Cerebro Spinal. None.

Pneumonia. Average through the year.

Rheumatism. A trifling increase compared with last year. Colder months.

Stomach, Acute diseases of. Average number. Summer.

6. No diseases had unusually large prevalence during the year.

7. No unusual fatality.

9. As to public sentiment or views of individuals, in regard to the importance of sanitary surroundings, there has been no noticeable advance compared with last year.

G. L. CHURCH, M. D.

KENT COUNTY.

2. COVENTRY.

3. Taking sickness of all kinds, there has been rather less than usual in my circuit during the past year.

Zymotic diseases have prevailed as follows :

Cholera Infantum. Only a few mild cases. Sporadic.

Croup. Only a few mild cases. Sporadic.

Diarrhea and Dysentery. Some cases during the warm season.

Diphtheria. Small number. Mild. Different months.

Fever, Malarial. A few sporadic cases.

Fever, Typhoid. Small number. Autumn.

Measles. A few cases. Scattered occurrence.

Scarlatina. An epidemic the last two months of the year. Average severity, although there were several fatal cases.

Whooping Cough. None.

5. No zymotic disease becoming epidemic, except scarlatina.

Diseases not zymotic :

Brain, Inflammation and Congestion of. Average in number and severity. Latter half of year.

Bronchitis, Acute. None uncomplicated.

Meningitis, Cerebro Spinal. Very few. Average severity. Autumn.

Pneumonia. Not above average number. Ordinary severity. Cold season.

Rheumatism. Average number. "All the year round."

Stomach, Acute diseases of. None.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. No diseases have been attended with unusual fatality.

8. As to scarlet fever and diphtheria being contagious the strongest evidence in almost every case attended is, that the disease *is* communicable from person to person.

9. There is a growing sentiment in favor of good sanitation, but no active measures have been taken by the authorities to improve the condition of things in my circuit.

J. WINSOR, M. D.

2. COVENTRY and portions of adjoining towns.

3. Taking sickness of all kinds, with me there has been more than usual. Especially Coventry Centre, ten per cent. more at least.

The following diseases have prevailed the past year :

Cholera Infantum. Few cases at Coventry Centre and Anthony. In summer.

Croup. Few mild cases in Washington, one fatal. Cool season.

Diarrhea and Dysentery. Anthony and Quidnick. Few obstinate cases. In summer.

Diphtheria. In mild form every month of year.

Fever, Malarial. A few mild cases; one severe.

Fever, Typhoid. Not one well defined case of typhoid. A few cases of fall or simple continued fever.

Measles. Average number of cases, and average severity.

Scarlatina. A real epidemic during fall months. As a rule very severe, about twenty per cent. proving fatal.

Whooping Cough. A few mild cases.

5. No other zymotic disease became epidemic.

Other diseases :

Brain, Inflammation and Congestion of. Less than average with me.

Bronchitis, Acute. Average prevalence during winter months.

Meningitis, Cerebro Spinal. One case. Terminated fatally. Month of October.

Pneumonia. Less than usual in number of cases, but a few severe cases in winter months.

Rheumatism. Every month in year. Inflammatory form in winter.

Stomach, Acute diseases of. None, strictly speaking. (Some bilious affections.)

6. Rheumatism had unusually large prevalence during the year.

7. Scarlatina was attended with unusual fatality.

8. Scarlatina, I think I have satisfactory evidence of its communicability from one to another, as nearly every case came, seemingly, from exposure to a previous case.

9. As to any advance in public sentiment or views of individuals, in regard to the importance of sanitary surroundings, I can only report that a few of our best families have made some improvement in sink drains and vaults.

F. B. SMITH, M. D.

2. WARWICK, RIVER POINT, PHENIX, ARCTIC and CENTREVILLE.

3. Of sickness of all kinds, there has been rather less than usual during the past year. Perhaps ten per cent. less.

4. The following zymotic diseases have prevailed during the year :

Cholera Infantum. Quite severe. Average number; usual season.

Croup. Average number. Cool months.

Diarrhea and Dysentery. Average number. Warm season.

Diphtheria. Less in number and mild, January, February, November, December.

Fever, Malarial. Less, except in Natick.

Fever, Typhoid. Average, except at Centreville among the French population, very severe and almost an epidemic.

Measles. Average; no particular season.

Scarlatina. Increase. Mortality about the average. As a general thing the disease has been mild. Fall months.

Whooping Cough. No epidemic.

5. No zymotic disease epidemic.

Other diseases as follows:

Bronchitis, Acute. Average prevalence; usual season.

Pneumonia. Quite prevalent during January, February and March; usual severity.

Rheumatism. Average number, through the year.

6. None.

7. No diseases attended with unusual fatality.

9. There is some advance in public sentiment and in views of individuals in regard to the importance of sanitary surroundings. Have been called upon as Health Officer to investigate a large number of nuisances, and said nuisances have been promptly abated without farther trouble.

A. G. SPRAGUE, M. D.

2. WARWICK and CRANSTON.

3. Taking sickness of all kinds, there has been about one-third more than usual in this circuit during the past year.

Zymotic diseases have prevailed as follows:

Cholera Infantum. Scarcely any.

Croup. Sporadic in Pontiac. Average. Cold months.

Diarrhea and Dysentery. Very small number.

Diphtheria. Prevailed in Pontiac and Natick during the fall. Mild.

Fever, Malarial. Always find cases in Pontiac and Natick.

Fever, Typhoid. Sporadic in Apponaug. For twelve years there have been sporadic cases in Apponaug during the fall, near the large pond, which is never drawn off.

Measles. Epidemic in Natick and Pontiac during the winter, but mild.

Scarlatina. Epidemic in Natick, and severe; several deaths.

Whooping Cough. Epidemic in Natick.

5. No other zymotic disease epidemic.

Diseases not zymotic:

Bronchitis, Acute. In Pontiac, large prevalence in January and February, 1887.

Meningitis, Cerebro Spinal. One case in Apponaug.

Pneumonia. Small degree of prevalence in the villages of Pontiac and Natick during January and February.

Rheumatism. Large in Pontiac during the whole year.

Stomach, Acute diseases of. Two severe cases in Warwick.

6. Bronchitis and Rheumatism had unusually large prevalence during the year.

DAN. O. KING, M. D.

2. WARWICK, CENTREVILLE and surrounding villages.

3. Taking sickness of all kinds, there has been about one-tenth more than the past year.

4. The following zymotic diseases have prevailed during the year:

Cholera Infantum. Sporadic in the summer months. Rather mild.

Croup. About average the year round.

Diarrhea and Dysentery. Prevalent in months of July, August and September. Not severe. Epidemic in Natick in the new village, between the two depots.

Diphtheria. Sporadic in the first and last months of the year. Mild.

Fever, Malarial. Sporadic cases during the whole year. Very prevalent in Natick during the summer and first part of the autumn.

Fever, Typhoid. A few cases. Mild.

Fever, Typhus. Very prevalent in the company's houses of the village of Centreville (cotton mill) during the fall. Severe form. Also a few cases in Crompton.

Measles. Average number and mild.

Scarlatina. Prevailed during the fall, mostly around Phenix and vicinity. Varying severity.

Whooping Cough. Average number.

5. No other zymotic disease becoming epidemic.

Other diseases:

Brain, Inflammation and Congestion of. Small number. Summer.

Bronchitis, Acute. Average number. Spring and fall. Ordinary severity.

Pneumonia. Average number. Usual type. Winter months.

Rheumatism. Small number. Winter. Mild.

Stomach, Acute diseases of. Large number. Average severity. June and July.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. No diseases unusually fatal.

8. Scarlet fever and diphtheria have been communicated, in my opinion, from one person to another, under my own observation.

9. No progress in public sentiment or views of individuals in regard to the importance of sanitary surroundings, that I know of.

M. J. E. LEGRIS, M. D.

2. EAST GREENWICH and adjoining towns.

3. About the average amount of sickness of all kinds.

4. Zymotic diseases have prevailed as follows during the past year:

Cholera Infantum. Not many cases.

Diarrhea and Dysentery. Not very prevalent, but somewhat during August and September.

Diphtheria. Occasional cases, through the year.

Fever, Malarial. Not as much as previous years in this immediate neighborhood.

Fever, Typhoid. A few bad cases, not epidemic. Fall months.

Measles. None, after the first of the year.

Scarlatina. Not very much. Sporadic in different months.

Whooping Cough. None.

5. No zymotic disease epidemic.

Other diseases in about the usual number, severity and season.

J. H. ELDRIDGE, M. D.

2. EAST GREENWICH and vicinity.

3. Taking sickness of all kinds, there has been about the usual amount.

4. The following zymotic diseases have prevailed in this circuit during the year:

Cholera Infantum. Prevailed in summer, of average severity.

Croup. In spring months, of average severity.

Diarrhea and Dysentery. In summer and fall months. Rather severe. About average number.

Diphtheria. Scattered cases throughout the year. Rather mild form.

Fever, Malarial. Prevailed more than usual, and of greater severity, in Ap-
ponaug and vicinity. Not any more in this village.

Fever, Typhoid. In fall months, rather severe and more or less complicated with Malarial Fever.

Measles. Prevailed during spring months. Rather mild.

Scarlatina. There has been more or less of Scarlet Fever every month during the year. Mostly mild, but very often followed by some of the sequelæ; much more often than usual.

Small Pox. None.

Whooping Cough. Very little.

5. No disease epidemic.

Other diseases:

Brain, Inflammation and Congestion of. Average prevalence. Summer months.

Bronchitis, Acute. Usual number. Spring months.

Meningitis, Cerebro Spinal. Very few. Summer months.

Pneumonia. Less than usual prevalence. Few cases in spring.

Rheumatism. Average prevalence throughout the year.

Stomach, Acute diseases of. Average prevalence. Summer months.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. No diseases have been attended with unusual fatality.
8. Cases of communication of Scarlet Fever and Diphtheria have occurred.
9. There seems to be an increasing sentiment among the people for isolating cases of Scarlet Fever and Diphtheria; or at least they avoid going or sending their children where it prevails.

E. G. CARPENTER, M. D.

NEWPORT COUNTY.

2. NEWPORT, JAMESTOWN and MIDDLETOWN.

3. As to amount of sickness of all kinds, there has been about the average—possibly less.

4. The following zymotics have prevailed during the past year:

Cholera Infantum. Not very much; some severe cases. August and September.

Croup. Very little; usually spasmodic.

Diarrhea and Dysentery. Small prevalence; summer.

Diphtheria. Occasional cases; not prevalent. Mild.

Fever, Malarial. None.

Fever, Typhoid. Not epidemic or severe. Fall months.

Measles. Very prevalent in winter and spring, without malignant features.

Scarlatina. There have been occasional cases during the year, as well as in the two previous years. Seldom more than one or two at the same time, and not severe.

Small Pox. None.

Whooping Cough. Prevailed in the late winter and the spring. Not dangerous.

5. No zymotic disease epidemic.

Of diseases not zymotic:

Brain, Inflammation and Congestion of. Not very observable.

Bronchitis, Acute. More or less during winter and spring, but hardly as much as usual, except as associated with measles.

Meningitis, Cerebro Spinal. None in my observation.

Pneumonia. Not unusually severe or prevalent, except as a complication with other diseases.

Rhenmatism. About the usual prevalence; not particularly severe or obstinate. All seasons.

Stomach, Acute diseases of. Not very many cases.

6. No diseases, not classed as zymotic, had unusually large prevalence during the year, except as above stated.

7. No unusual fatality.

8. I have made no observations of any great significance as to the transmissibility of diseases during the year.

9. There has been a very decided advance in public sentiment in regard to the importance of sanitary surroundings.

H. E. TURNER, M. D.

2. NEWPORT CITY.

3. During the year 1887, there has been apparently no increase in amount of illness over that of the year previous. This opinion is based upon the death rate, which was the same as in 1886. The total number of deaths in each year (1886 and 1887) was 314. This is equivalent to a death rate of 16.16 per 1000—estimating the population at 19,552. The summer months were exceptionally healthy, if we again base the amount of illness upon the death rate. In August the permanent population is increased by from five to six thousand summer visitors, making the population for the month not less than 25,000. The number of deaths for the month was 28, or an equivalent to an annual death rate of 13.44 per 1000.

4. Of the zymotic diseases, measles has prevailed the most extensively. During the first five months of the year, 274 cases were reported. It is safe to say, however, that this number did not constitute one-third of the existing cases, and that it would be a low estimate to place the number ill with the disease between five and six hundred. The disease was of a mild type, and but ten deaths were reported as occasioned by it.

Scarlet Fever. Thirty-two cases reported, and four deaths.

Diphtheria. Seven cases and three deaths—a much better report than that of the previous year, when there were thirty-eight cases and nineteen deaths.

Typhoid Fever. Twenty-four cases and five deaths.

Whooping Cough has prevailed very extensively during the winter months and early spring. Two deaths reported from it.

Cholera Infantum. Twenty-six deaths during the year; 13 of which occurred in August.

Dysentery and Diarrhea. The city was exceptionally free from diarrhea and dysentery, notwithstanding the very depressingly hot weather of July and early part of August.

Malarial Fever. Diseases of a malarial character are exceedingly rare, and are chiefly confined to the neighborhood of a marsh near the south end of Thames street. It is from this section, also, that a large percentage of reported cases of typhoid fever had their origin.

Acute pulmonary troubles have been perhaps more prevalent than during previous years. Twenty-two deaths from pneumonia reported in 1887; 19 in 1886; 15 in 1885. The increase of acute pulmonary diseases was doubtless due to the widespread epidemic of measles.

Rheumatism, of a sub-acute character, is frequently met with during the colder months, but severe inflammatory rheumatism is of rare occurrence.

6. Diseases, not classed as zymotic, have not had unusually large prevalence during the past year.

Phthisis. Thirty-three deaths were reported from this disease.

8. The contagious character of scarlet fever and diphtheria is now universally admitted, and the clinical study of the cases reported during the past year amply endorses this view. Houses in which scarlet fever or diphtheria are reported are placarded with the name of the disease, as a warning to visitors, and as a means of checking the spread of the disease; and in exceptional cases the house is quarantined.

9. The city officials and general public have evinced a decided desire during the past year to improve the sanitary condition of the city. Greater attention has been paid to maintaining the streets free from filth and dirt. The cesspools and out-houses are gradually being abandoned as the public sewers are extended; the wells in the more thickly settled portions of the city are also rapidly being abandoned, and the water supplied by the Newport Water Works Co. is now almost everywhere used. The local Board of Health has done good work by its inspections.

Great progress has been made towards completing the plan of sewerage. The outlet pipe has been submerged across a narrow portion of the inner harbor, passing underneath the breakwater, and discharges its contents in deep water in the outer harbor. Through this outlet pipe will be carried the sewerage matter from the greater portion of the city.

At the fall election, the popular vote decided to extend the main sewer through Thames street to Ochre Point, and already a considerable portion of the work has been accomplished. This sewer intersects a number of the old sewers which formerly entered the inner harbor; it also gives relief to a large section of the city occupied by summer residents, and is the most important sanitary enterprise that Newport has undertaken.

F. H. RANKIN, M. D.

2. TIVERTON (Stone Bridge).

3. There was more sickness than usual in my circuit during the past year.

4. The following zymotic diseases have prevailed in my circuit during the year:

Cholera Infantum. Mild type. Summer months.

Croup. Not severe. Different months.

Diarrhea and Dysentery. None.

Diphtheria. Mild type. Sporadic.

Fever, Malarial. None.

Fever, Typhoid. Average number. Fall

Measles. Mild. Small number.

Scarlatina. None.

Whooping Cough. None.

5. No zymotic disease epidemic.

Diseases not zymotic:

Brain, Inflammation and Congestion of. Small number.

Bronchitis, Acute. Small number. Spring.

Pneumonia. Average number. Spring and fall.

Rheumatism. Average; through the year.

Stomach, Acute diseases of. Small number. Summer months.

6. No one disease had unusually large prevalence during the year.

7. No diseases attended with unusual fatality.

9. No noticeable advance in public sentiment or views of individuals in regard to importance of sanitary surroundings, or any increased interest in means of preventing diseases.

C. H. YALE, M. D.

PROVIDENCE COUNTY.

2. BURRILLVILLE.

3. Taking sickness of all kinds, there has been about the usual amount during the past year.

Cholera Infantum. During the summer months a few cases.

Diarrhea and Dysentery. About the usual amount. Warm months.

Diphtheria. Early in the spring a few isolated cases, not of a malignant character. Later in the summer it broke out in one house and three children died within a week. Could not learn that it spread at all; no one else in the neighborhood had it.

Fever, Malarial. Did not see any that I could call real malaria.

Fever, Typhoid. A few isolated cases during the fall months.

Measles. None to my knowledge.

Scarlatina. None known to me.

Whooping Cough. None.

5. No zymotic disease had large prevalence.

Pneumonia. A few cases in the early spring.

Rheumatism. About the usual amount through the year.

Stomach, Acute diseases of. About the usual amount. Summer season.

6. No unusually large prevalence of any disease.

7. No diseases unusually fatal.

9. Do not observe any advance in public sentiment or views of individuals in regard to the importance of sanitary surroundings, or increased interest in means of preventing diseases.

H. J. BRUCE, M. D.

2. CUMBERLAND and LINCOLN, LONSDALE and vicinity.

3. Taking sickness of all kinds, there has been some increase during the past year, due entirely to intermittent fever and diphtheria.

4. The following zymotic diseases have prevailed during the year:

Cholera Infantum. Sporadic. Average in number and severity. During hot months. In the villages.

Croup. Sporadic, except when associated with diphtheria.

Diarrhea and Dysentery. Average number and severity. Usual season.

Diphtheria. More than ever before known. Commencing in August, it has continued up to the present time, September and October being, perhaps, the worst months. Very fatal. More than half the fatalities due to croup. The epidemic was quite generally distributed.

Fever, Malarial. Last year, 1886, apparently there was no increase over 1885 in the number of cases of intermittent fever, but 1887 showed a great increase over any one of the five years during which it has prevailed here. The village of Berkeley, perhaps, suffered most, although Lonsdale and Valley Falls were not far behind.

Fever, Typhoid. A few sporadic cases. For ten years past there have not been one-fourth as many cases of typhoid fever as during the ten years preceding.

Measles. Few cases. Sporadic.

Scarlatina. Few cases. Sporadic.

Whooping Cough. Few cases; chiefly in the spring.

5. No other zymotic disease becoming epidemic.

L. F. C. GARVIN, M. D.

2. VALLEY FALLS (Lincoln and Cumberland).

3. Taking sickness of all kinds, there has been the usual amount during the year.

4. The following zymotic diseases have prevailed during the year:

Cholera Infantum. A few mild cases. June and October.

Croup. Sporadic. Severe. November.

Diarrhea and Dysentery. Sporadic. Mild. October.

Diphtheria. Sporadic. Severe. Large number. October and November.

Fever, Malarial. Sporadic. Mild. *Very* prevalent from May to November.

Fever, Typhoid. Few. Sporadic. Mild. October.

Measles. None.

Scarlatina. Very few. Sporadic. Mild. June and October.

Whooping Cough. None.

5. No zymotic disease becoming epidemic.

Diseases not zymotic as follows:

Bronchitis, Acute. Average number. Fall and spring.

Meningitis, Cerebro Spinal. None.

Pneumonia. Small number only. February, March and November.

Rheumatism. Small prevalence. April and October.

Stomach, Acute diseases of. Small number. October.

6. No diseases, not classed as zymotics, had unusually large prevalence during the year.

8. Nothing particular that seemed to indicate that Scarlet Fever, Diphtheria or Typhoid Fever had been communicated from one person to another.

9. No noticeable advance in public sentiment or views of individuals in regard to the importance of sanitary surroundings.

During the months of July, August and September, I was absent from the country.

G. B. HAINES, M. D.

2. Towns of LINCOLN and CUMBERLAND.

3. There has been about the same amount, taking sickness of all kinds, during the past year.

4. The following zymotic diseases have prevailed during the year:

Cholera Infantum. A few cases. Average severity. July and August.

Croup. Three cases of diphtheritic croup.

Diarrhea and Dysentery. A few sporadic cases. Summer and fall.

Diphtheria. Epidemic, at Manville. September and October. Severe.

Fever, Malarial. Several cases. First in my practice of four years in this vicinity.

Fever, Typhoid. None.

Measles. None.

Scarlatina. Three cases. Sporadic. Severe. November and December.

Whooping Cough. None. •

Other diseases as follows:

Brain, Inflammation and Congestion of. None.

Bronchitis, Acute. A few cases. January and February.

Meningitis, Cerebro Spinal. None.

Pneumonia. Very few cases. January.

Rheumatism. Small prevalence. Average severity.

Stomach, Acute diseases of. Average number. Warm months.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. No diseases have been attended with unusual fatality.

9. Not any advance in public sentiment or views of individuals, that I have seen, in regard to the importance of sanitary surroundings, or any increased interest in means of preventing diseases.

T. W. HAGUE, M. D.

2. EAST PROVIDENCE, BARRINGTON and WARREN.

3. Taking sickness of all kinds, should say at least a third more during the past year.

4. Diseases as follows:

Cholera Infantum. Some. July and August.

Croup. Very few. Mostly in September and October.
Diarrhea and Dysentery. Some cases in August.
Diphtheria. An increase from last year of considerable importance.
Fever, Malarial. Mostly old cases.
Fever, Typhoid. Seen none in six months.
Measles. A few cases only.
Scarlatina. An increased number. Fall months.
Whooping Cough. None.

5. No zymotic disease epidemic.

Brain, Inflammation and Congestion of. Small number.

Bronchitis, Acute. Some in September. Ordinary severity.

Meningitis, Cerebro Spinal. Three cases in last six months.

Pneumonia. Large number of cases and quite a severe type. Cold months.

Rheumatism. Small number only. No particular season.

Stomach, Acute diseases of. No more than usual.

6. No diseases had unusually large prevalence during the year.

7. The diseases attended with unusual fatality were diphtheria and pneumonia.

9. In regard to public sentiment in this circuit, in relation to the importance of sanitary surroundings, there has been no advance, and will not be under the existing state of things.

R. F. C. BROWNE, M. D.

2. FOSTER and surrounding towns.

3. Taking sickness of all kinds, there has been about the same amount in this circuit during the past year.

4. The following diseases have prevailed:

Cholera Infantum. Sporadic. Average number. Summer.

Fever, Typhoid. Epidemic. Severe. September and October. Clayville.

Measles. Sporadic. Average.

Scarlatina. Epidemic. Average. South Foster.

Pneumonia. Small number. April.

Rheumatism. Average number.

H. ARNOLD, M. D.

2. GLOCESTER and BURRILLVILLE, with parts of adjoining towns.

3. Taking sickness of all kinds, there has been the usual amount during the past year.

4. Zymotic diseases have prevailed in our circuit during the year as follows:

Cholera Infantum. None.

Croup. None.

Diarrhea and Dysentery. Sporadic cases only. Ordinary severity; usual season.

Diphtheria. Only two or three cases, without any dependence on each other.

Fever, Malarial. The past year is the first in which there have been cases native in our circuit. Not very many, but some perfectly well marked. Mostly in the eastern part of Burrillville and Glocester. Not very severe.

Fever, Typhoid. Only sporadic cases. A few severe. Fall months.

Measles. None, except German measles, so called.

Scarlatina. None.

Whooping Cough. None.

5. No zymotic diseases becoming epidemic, unless we except Rubella, or German measles. About 40 cases occurred, all in the village of Chepachet. Most cases not severely sick; a few were so by reason of complications (bronchitis and diphtheria). None fatal.

Brain, Inflammation and Congestion of. Small number.

Bronchitis, Acute. Average prevalence. Cool months.

Meningitis, Cerebro Spinal. None.

Pneumonia. Average number. Winter and spring.

Rheumatism. Average prevalence through the year.

Stomach, Acute diseases of. Small prevalence.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. No unusual fatality.

9. No noticeable advance in public sentiment in regard to the importance of sanitary surroundings.

POTTER & HARRIS, M. D.

2. JOHNSTON, and parts of PROVIDENCE CITY, NORTH PROVIDENCE and CRANSTON.

3. Taking sickness of all kinds, there has been ten per cent. more than usual in this circuit during the past year.

4. The following zymotic diseases have prevailed during the year:

Cholera Infantum. Average number. Sporadic. Mild. Late summer months.

Croup. Rather less. Mild. Winter months and late fall.

Diarrhea and Dysentery. More than usual. Summer months. Average in severity.

Diphtheria. More; above average severity. Fall and winter, and largely around Mount Pleasant.

Fever, Malarial. More than last year; severe. From March to November.

Fever, Typhoid. Much less; average severity. Fall of the year.

Measles. Above average amount. Average severity. Winter, spring and fall.

Scarlatina. Much more; severe. From July to December almost epidemic.

Whooping Cough. Average number. Average severity. August to October.

5. No other zymotic disease epidemic.

Brain, Inflammation and Congestion of. Average number and severity. October to December.

Bronchitis, Acute. More. Average type. Winter months.

Meningitis, Cerebro Spinal. Less; two cases only. Average severity. Summer and fall.

Pneumonia. Large prevalence. Winter and spring months. Average type.

Rheumatism. More than usual. October to December. Severe.

Stomach, Acute diseases of. Average number; all the year. Average severity.

6. Bronchitis, pneumonia and rheumatism had unusually large prevalence during the past year.

8. There was a repetition of the usual circumstances that seemed to indicate that Scarlet Fever and Diphtheria had been communicated from one person to another.

9. There is an advance in public sentiment in regard to the importance of sanitary surroundings. An unusual call has been made upon the Health Officers to investigate the sanitary condition of premises and localities, and an enforcement of sanitary laws.

G. R. FISHER, M. D.

2. PAWTUCKET and LINCOLN, CENTRAL FALLS and vicinity.

3. About the usual amount of sickness during the past year.

4. Zymotic diseases:

Cholera Infantum. Very little during summer months.

Croup. A few cases—more than in some years.

Diarrhea and Dysentery. Diarrhea very little. Few of dysentery; mild.

Diphtheria. Very little until November; considerable in that month and December. All mild except three cases in one family in Pawtucket, which terminated in croup, fatally; one at Lonsdale, fatal, ending in croup.

Fever, Typhoid. None of consequence.

Measles. None.

Scarlatina. Comparatively none.

Whooping Cough. A few cases.

5. No zymotic disease epidemic.

Other diseases:

Brain, Inflammation and Congestion of. None.

Bronchitis, Acute. A few cases in January, February and March.

Meningitis, Cerebro Spinal. None.

Pneumonia. Very few cases. Cold months.

Rheumatism. Above the average in number; during March to June.

Stomach, Acute diseases of. None.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. No diseases attended with unusual fatality.

8. In relation to circumstances that seemed to indicate that Scarlet Fever, Diphtheria or Typhoid Fever had been communicated from one person to another, I do not believe *either* are contagious. In theory they are, but not in practice.

9. I think there is some advance in public sentiment in regard to the importance of sanitary surroundings.

A. A. MANN, M. D.

2. NORTH SCITUATE and parts of adjoining towns.

3. Taking sickness of all kinds, there has been twenty-five per cent. more than usual in my circuit during the past year.

Cholera Infantum. Average. Usual season.

Croup. Less than average. Winter months.

Diarrhea and Dysentery. Average. Summer and fall.

Diphtheria. Severe type. Small number. October, November and December.

Fever, Malarial. Above the average number; through the season. Average severity.

Fever, Typhoid. Average severity. Small number.

Measles. Average number and severity. Spring.

Scarlatina. Average number. Mild. Spring.

Whooping Cough. Few cases. Average type. Fall months.

5. No zymotic disease epidemic.

Bronchitis, Acute. Greatly in excess of previous years. Fall months.

Pneumonia. Above the average in number and severity. Fall and winter.

Rheumatism. Average; through the year.

6. Bronchitis had unusually large prevalence during the year.

7. No diseases attended with unusual fatality.

9. Not much advance in public sentiment or views of individuals noticed in regard to the importance of sanitary surroundings, or increased interest in means of preventing diseases.

WALTER J. SMITH, M. D.

2. SCITUATE, eastern part of FOSTER and southern part of GLOCESTER.

3. Taking sickness of all kinds, an average amount, perhaps slightly increased.

4. Diseases have prevailed as follows:

Cholera Infantum. Somewhat diminished amount, average severity. Prevails almost entirely where hygiene is neglected. Summer.

Croup. Very few cases; associated with Bronchitis very severe, in one case that terminated fatally. Winter.

Diarrhea and Dysentery. I should say rather more than the usual amount of dysentery; average severity. Diarrhea; fully an average amount. Chiefly summer and late fall months. All amenable to treatment.

Diphtheria. My cases have been chiefly cases of diphtheritic sore throat, for the season just closed. Do not think I have had but one or two cases of the true diphtheritic type.

Fever, Malarial. Remains at about the increased amount noted last year. Much ill health also is ascribed to dumb ague or masked malaria, in my section. Summer, fall and winter.

Fever, Typhoid. A few cases have occurred same as last year. Late fall. Not very severe.

Measles. A few cases occurred during the winter; none in the spring.

Scarlatina. None in my immediate circuit this year.

Whooping Cough. None.

5. No zymotic disease epidemic.

All above diseases except measles have been sporadic, in my practice.

Brain, Inflammation and Congestion of. None.

Bronchitis, Acute. Average prevalence, and severity. Winter and especially early spring.

Meningitis, Cerebro Spinal. None.

Pneumonia. Average number; late fall.

Rheumatism. Small number. Rainy weeks of winter and early spring.

Stomach, Acute diseases of. Not as many as last year. Usually in the fall.

6. No diseases, not classed as zymotics, had unusually large prevalence except quite an unusual number of cases of Acute Brights Disease.

7. No unusual fatality.

8. A single case of scarlatina occurring in one family was noticeably spread from that family to another near by, though rather slowly. All the children in one family contracted it and also one adult, the only parent being about 45 years old.

9. In regard to the importance of sanitary surroundings it may be remarked, that the science of physiology is being much more extensively taught in the public schools, and I think with very beneficial results. Its study is not now confined to the so-called "Temperance views," but to the broadened views of more correct living.

The necessity of isolation of scarlet fever and measles, and thereby securing their confinement to the families in which they first occur, is obtaining more general acceptance.

B. ARNOLD, M. D.

2. SMITHFIELD, GREENVILLE circuit.

3. Taking sickness of all kinds, there has been fully an average amount.

4. Diseases have prevailed as follows:

Cholera Infantum. Moderate prevalence, in late summer months.

Croup. True croup, a few cases, severe; spasmodic, none.

Diarrhea and Dysentery. Moderate prevalence ; summer.

Diphtheria. Fully an average prevalence with average severity. Different months.

Fever, Malarial. Large prevalence ; usual season.

Fever, Typhoid. Very little during the year.

Measles. Average. February, March and December.

Scarlatina. Not large, but some severe cases.

Whooping Cough. None.

5. No zymotic disease epidemic.

Brain, Inflammation and Congestion of. No cases.

Bronchitis, Acute. Average amount. March, April, November, December.

Meningitis, Cerebro Spinal. No cases.

Pneumonia. Average prevalence. Spring.

Rheumatism. Average, through the year.

Stomach, Acute diseases of. Very little ; late summer months.

6. No diseases had unusually large prevalence.

7. No diseases have been attended with unusual fatality.

8. As to circumstances that seemed to indicate that Scarlet Fever, Diphtheria or Typhoid Fever had been communicated from one person to another, I have had no evidence during the year sufficiently positive to confirm that theory.

9. Have not observed any sanitary improvements during the past year.

R. P. EDDY, M. D.

2. WOONSOCKET.

3. The severe epidemic of Scarlet fever which prevailed here during the month of December excepted, there has been not more than the usual amount.

Cholera Infantum. None in my practice.

Croup. Some few cases, perhaps a half a dozen.

Diarrhea and Dysentery. A little more than usual. Usual season.

Diphtheria. Many cases of spurious diphtheria, ulcerative tonsilitis and sore throat, not one genuine case in my practice, all were amenable to mild treatment.

Fever, Malarial. Only a few cases of genuine intermittent, or what is commonly pronounced "fever and ague."

Fever, Typhoid. Rather below the average number.

Measles. Not above the average.

Scarlatina. A very severe epidemic, very fatal, particularly among the Canadian population. December.

Small Pox. None.

Whooping Cough. In my practice only two cases.

5. None.

Other diseases as follows:

Bronchitis, Acute. Very prevalent during the winter months.

Meningitis, Cerebro Spinal. None in my practice.

Pneumonia. Some half a dozen of cases in all, and of a mild character. Spring.

Rheumatism. A few cases of rheumatic fever during the last three months of the year; plenty of pains, aches and stiffness in the muscles and joints.

6. No diseases, not classed as zymotics, had unusually large prevalence during the year to my knowledge.

7. The disease attended with unusual fatality was scarlet fever alone.

8. In my opinion, scarlet fever is communicable only by personal communication with the sick or by infection through the medium of fomites, etc., impregnated with the materia morbi that emanated from the scarlet fever patient. Of diphtheria and typhoid fever I have no fixed opinion.

PETER MADDEN, M. D.

2. WOONSOCKET.

3. Taking sickness of all kinds, there has been more than double the usual amount including scarlet fever in the fall months.

Cholera Infantum. Few cases. Summer time.

Croup. Considerable. November and December.

Fever, Typhoid. Few cases. Fall.

Measles. Few cases, usual severity.

Scarlatina. Epidemic very severe. December.

Whooping Cough. Few cases.

Other diseases:

Bronchitis, Acute. Considerable. March and December.

Pneumonia. Average number. January and February.

Rheumatism. Average severity. February and March.

7. Scarlet Fever was attended with unusual fatality.

9. Some advance in public sentiment in regard to the importance of sanitary surroundings; the town council took all measures that were suggested by physicians to stop the epidemic of diphtheria and scarlet fever.

J. C. MARANDA, M. D.

2. WOONSOCKET and NORTH SMITHFIELD.

3. Taking sickness of all kinds, there has been a slight increase during the past year.

Diphtheria. Almost epidemic; average severity. November and December.

Fever, Malarial. Increase during fall months.

Scarlatina. Epidemic; severe. December.

5. No other zymotic disease epidemic.

Diseases not zymotic:

Brain, Inflammation and Congestion of. Average.

Bronchitis, Acute. Average, or rather large. Spring and late fall.

Pneumonia. Average number. Winter and spring.

Rheumatism. Average number; usual season.

Stomach, Acute diseases of. Average number. Summer.

6. None.

7. The diseases attended with unusual fatality were scarlet fever and diphtheria.

8. In regard to circumstances that seemed to indicate that Scarlet Fever and Diphtheria had been taken or communicated from one person to another, many such cases have occurred.

9. During the past year some slight advance in public sentiment noticed in regard to the importance of sanitary surroundings.

GEORGE R. SMITH, M. D.

2. PROVIDENCE CITY.

3. The whole amount of sickness of all kinds in this city, during 1887, was at least ten per cent. more than usual, allowing for increase of population.

4. Zymotic diseases were prevalent as follows:

Cholera Infantum. Usual prevalence and of ordinary severity. July and August.

Croup. Usual prevalence, except as complicated with diphtheria. Winter and fall.

Diarrhea and Dysentery. About an average in prevalence and severity. Perhaps a rather larger number of simple diarrhea. Sporadic. Warm season.

Diphtheria. More than usual. Average severity. Winter and fall. Most prevalent in the fall, in the western part of the city, along and in the vicinity of the Woonasquatucket river.

Fever, Malarial. More in the western part of the city than in 1886. Many severe cases. From March to December.

Fever, Typhoid. Considerably less. Average severity. No special locality. September to the end of the year.

Measles. A very largely increased number during the first five months of the year. Almost or quite epidemic in some sections of the city. Quite severe in many cases, and fatal, complicated with pneumonia, bronchitis and croup.

Scarlatina. Large prevalence. Epidemic in sections. Usual type; some malignant. From July to end of the year.

Small Pox. One case; imported. Mild.

Whooping Cough. No unusual number; sporadic. Mostly August to November.

Prevalence of other important acute diseases as follows:

Bronchitis. Average prevalence. Usual type, except as in complication with other diseases; sporadic. January, February, March, November and December.

Pneumonia. Increased number; usual severity. ● Mostly in the first four months of the year.

Rheumatism. About the average of previous years. All seasons. Ordinary severity. Sporadic.

6. Acute diseases, not zymotic, having unusual prevalence, differ in different sections of the city, as reported by different physicians, but hardly increase the general number within the entire city limits.

7. Measles, diphtheria and scarlet fever were rather more fatal than usual.

8. Observations of frequently repeated evidence of the communicability of scarlet fever and diphtheria.

9. There is, unquestionably, an increased interest in public and private sanitation.

C. H. FISHER, M. D.

2. PROVIDENCE.

3. Taking sickness of all kinds, there has been more than usual in this city during the past year.

4. The following zymotic diseases have prevailed:

Cholera Infantum. Average number of cases; usual season.

Croup. Quite prevalent during October, November and December.

Diarrhea and Dysentery. Sporadic. Usually mild.

Diphtheria. More than usual number of cases; many severe. Winter and fall.

Fever, Malarial. Malaria appeared occasionally, and as in the year previous, in all parts of the city. Average severity.

Fever, Typhoid. Occasional cases. Autumn.

Measles. Prevailed to a considerable extent during the first half of the year.

Scarlatina. Very prevalent during the last four months of the year. Severe in many cases.

Whooping Cough. Sporadic.

5. No other zymotic disease epidemic.

Brain, Inflammation and Congestion of. Average number and severity. No particular season.

Bronchitis, Acute. Usual prevalence; usual type. January to May, November and December.

Meningitis, Cerebro Spinal. Few cases only.

Pneumonia. Many cases during spring and winter months; ordinary severity.

Rheumatism. Average prevalence during the year.

Stomach, Acute diseases of. Not noticeably prevalent or severe.

6. No diseases, not classed as zymotics, had unusually large prevalence.

7. The diseases attended with unusual fatality were diphtheria and scarlatina.
8. Frequent illustrations observed of the communicability of scarlet fever and diphtheria.

G. D. HERSEY, M. D.

2. CHARLESTOWN and RICHMOND.

3. The total amount of sickness of all kinds has been rather less than usual in my circuit during the past year. Perhaps twenty per cent. less.

4. The following zymotic diseases have prevailed during the year:

Cholera Infantum. None.

Croup. None, except diphtheritic.

Diarrhea and Dysentery. Sporadic; mild. July, August and September.

Diphtheria. Epidemic; severe. November and December. Carolina Mills.

Fever, Malarial. None.

Fever, Typhoid. Few sporadic cases. Average severity. November.

Measles. None.

Scarlatina. None.

5. No other zymotic disease epidemic.

Brain, Inflammation and Congestion of. None.

Bronchitis, Acute. Small amount.

Meningitis, Cerebro Spinal. None.

Pneumonia. Average prevalence. Winter and spring.

Rheumatism. Average in number and severity.

Stomach, Acute diseases of. Average prevalence.

6. No diseases, not classed as zymotic, had an unusually large prevalence during the year.

7. None attended with unusual fatality.

8. There were circumstances during the year that seemed to indicate that diphtheria had been communicated from one person to another.

9. There is, evidently, a better appreciation of the necessity of, and consequently more attention to, the sanitary surroundings than formerly.

A. A. SAUNDERS, M. D.

2. RICHMOND, CHARLESTOWN, and eastern parts of HOPKINTON and WESTERLY.

3. There has been about the average amount of sickness during the past year.

4. Zymotic diseases have prevailed during the past year as follows:

Cholera Infantum. None.

Croup. Rather more than average amount. Usual severity. Cold season.

Diarrhea and Dysentery. Average prevalence and severity. Warm season.

Diphtheria. Epidemic at Carolina Mills during last of October, November and December. Malignant.

Fever, Malarial. Very little.

Fever, Typhoid. Very little for past two years.

Measles. Average prevalence. Mild cases.

Scarlatina. None.

Whooping Cough. Small number.

5. No zymotic disease epidemic, except diphtheria.

Brain, Inflammation and Congestion of. Very little.

Bronchitis, Acute. Average amount. Usual severity. Different seasons.

Meningitis, Cerebro Spinal. None.

Pneumonia. Average in amount and severity. Colder months.

Rheumatism. More than usual. All seasons.

Stomach, Acute diseases of. Average prevalence. Different months.

6. No other diseases had unusually large prevalence.

7. No unusual fatality.

8. As to circumstances that seemed to indicate that diphtheria had been communicated from one person to another, I will say that, after a careful investigation of the surroundings and circumstances connected with the epidemic of diphtheria at Carolina Mills, my conclusions are that the disease arises from infection, and not, as has been held, from accumulations of filth, impure air, &c. I believe there is no doubt but that unsanitary surroundings will cause the disease to spread and become malignant, if we have even one single mild case in such a locality; but I do not think that filthy privy-vaults, cesspools, sink-drains, &c., are sufficient to produce an original case of diphtheria. For example, after the epidemic at Carolina had ceased, three cases were reported in Shannock. On visiting the house, I learned that the mother had taken two of her children to Olneyville on a visit. While there, one of them had diphtheria and died; the child was buried there, and the other taken home. The next day that child was taken with it, and a few days later the other two children who had not been away from the village were also taken down. These cases recovered. The house was quarantined and afterward thoroughly fumigated, and there has been no new cases since. The hygienic surroundings are no better there than at Carolina; and in my opinion an epidemic was prevented by the strict quarantine and disinfection at that time.

A. H. ECCLESTON, M. D.

2. NORTH KINGSTOWN, and parts of SOUTH KINGSTOWN and EXETER.

3. No more than the usual amount, taking sickness of all kinds, in my circuit during the past year.

4. Zymotic diseases have prevailed as follows :

Cholera Infantum. A few cases of average severity in the summer months.

Croup. None.

Diarrhea and Dysentery. More than usual of dysentery; all sporadic and some severe. Warm season.

Diphtheria. Considerable diphtheria in the village of Hamilton; generally went through the whole family, and some deaths occurred.

Fever, Malarial. Several cases, most of them of foreign origin.

Fever, Typhoid. Less than usual. Fall months.

Measles. None.

Scarlatina. None.

Whooping Cough. None.

5. No zymotic disease epidemic.

6. No diseases, not classed as zymotics, had unusually large prevalence during the year.

7. None attended with unusual fatality.

8. I think scarlet fever usually is contagious, but have seen isolated cases. Diphtheria usually goes through a family, or may attack several families or individuals at the same time or successively, without inter-communication, in any given locality. Do not think typhoid fever communicable.

9. No change noticed in public sentiment in relation to hygiene.

C. E. MARYOTT, M. D.

2. SOUTH KINGSTOWN.

3. About an average of sickness of all kinds.

Cholera Infantum. Sporadic. Mild. Summer.

Diarrhea and Dysentery. Usual amount through warm weather.

Diphtheria. I know of but one case. Fatal. October.

Fever, Malarial. Very little.

Fever, Typhoid. See extra sheet appended.

Measles. Epidemic in Kingston in January and February. Epidemic through July and August in Wakefield and vicinity. Unusual amount of complications, epistaxis, diarrhea, &c. Unusually fatal.

Scarlatina. None in my practice. Heard of some cases under care of other physicians.

Whooping Cough. None to my knowledge.

5. No other zymotic disease becoming epidemic.

Brain, Inflammation and Congestion of. Average. Summer.

Bronchitis, Acute. Average prevalence. February, March, April, May, November and December.

Pneumonia. Average prevalence and severity. May and November.

Rheumatism. Average prevalence all through the year.

Stomach, Acute diseases of. Average number. Summer.

6. The diseases, not zymotic, that had unusually large prevalence during the year were hepatic disorders, accompanied by low febrile conditions.

7. No diseases, except measles, were attended with unusual fatality.
8. I have known of circumstances that seemed to indicate that typhoid fever had been communicated from one person to another. See note appended.
9. Have noted no advance in public sentiment in regard to the importance of sanitary surroundings.

P. K. TAYLOR, M. D.

Note.—In reply to letter “f” and figure 8 of the circular:

In September, 1887, a daughter of a family living one mile north of the village of Kingston went home ill. Supposed overwork, &c. Later considered typhoid fever. Died quite suddenly last of October. About ten days after death, a younger son and daughter were taken ill with typhoid fever and the daughter died. Then a third daughter sickened and died. At present, January 5, 1888, son is slowly convalescing and father is a “walking case” of typhoid. Family live on farm on side-hill. Neat household. Cesspool near well. Query is, whether case No. 1 did not, through discharges, poison well water. More definite dates and particulars could doubtless be furnished by the attending physician, Dr. W. H. Hazard of Wakefield, or John A. Wilcox, M. D., of Wakefield, who saw the cases in consultation. My knowledge is merely hearsay.

P. K. T.

In relation to the above, the following note was received in reply to one of inquiry:

DR. CHARLES H. FISHER:

DEAR SIR:—Your letter duly received. In the matter you allude to, we could find no cause about the premises. I, with two other physicians, examined the place thoroughly and could not see anything that should cause such cases of malignant disease.

The first patient was brought home sick from E. C. Clarke's, Esq., Kingston. I was called as consulting physician. Found her dying. Shortly after, perhaps a fortnight, I was called to see another of the family with the same disease, and it went through the family of eight, four dying of the most malignant type of typhoid fever. Two others who were frequent watchers there had it in a milder form and recovered.

Respectfully yours,

W. H. HAZARD.

2. WESTERLY.

3. Taking sickness of all kinds, there has been perhaps one-half more than the year before.

4. Zymotic diseases have prevailed as follows:

Cholera Infantum. Average in number and severity. Summer.

Croup. A few sporadic cases. Different months.

Diarrhea and Dysentery. Considerable diarrhea in summer, and some dysentery during the fall,

Diphtheria. Very prevalent in some locations; 75 cases reported by physicians during the year; some malignant. Still prevailing at the end of the year.

Fever, Malarial. Average, or perhaps less.

Fever, Typhoid. Sixteen cases reported during the year. Mostly late summer and fall.

Measles. A few cases.

Scarlatina. Twenty-two cases reported; some severe. Autumn.

Whooping Cough. Small number.

5. No zymotic disease epidemic.

Brain, Inflammation and Congestion of. Not above the average. Sporadic.

Bronchitis, Acute. Large prevalence. Average severity. Spring and fall.

Meningitis, Cerebro Spinal. None.

Pneumonia. Average number. Usual type. Cold weather.

Rheumatism. Full average. Cold months.

Stomach, Acute diseases of. A few cases only.

6. No diseases, not classed as zymotic, had unusually large prevalence.

7. I should say average fatality.

9. There is some advance in public sentiment in regard to the importance of sanitary surroundings. I am greatly indebted to Mr. Everett C. Willard, Principal of the schools in District No. 1, for his vigilant coöperation in ferreting out and reporting cases of contagious diseases, many of which would probably have never been known but for his assistance.

H. W. ROSE, M. D.

2. WESTERLY.

3. Taking sickness of all kinds, there has been more than usual during the past year.

4. The following zymotic diseases have prevailed in this circuit during the year:

Cholera Infantum. Sporadic. Average type. Summer.

Croup. One case true croup.

Diarrhea and Dysentery. Average amount; mostly in summer.

Diphtheria. None in my practice.

Fever, Malarial. A few cases.

Fever, Typhoid. None in my practice in Westerly.

Measles. None.

Scarlatina. In the fall, eleven cases, rather mild, in one family; in fact, the whole family, except the father, who had it (scarlatina) when a child. The youngest three began to sicken seven days after the coming of their grandmother to visit the family, from a place some six miles away, where she had been attending for a week or so another grandchild, who "had sore throat and the same sort of rash," but was not sick enough to necessitate calling a physician. The other

eight cases probably took the disease from the first three, since circumstances prevented satisfactory isolation, and there were no other cases in the vicinity.

Whooping Cough. None.

5. No zymotic disease.

Other diseases:

Brain, Inflammation and Congestion of. Very few cases.

Bronchitis, Acute. Average in number and severity. Spring, fall and winter.

Meningitis, Cerebro Spinal. None.

Pneumonia. Average number. Winter and spring.

Rheumatism. Average prevalence. Cold months.

Stomach, Acute diseases of. Average in number and severity. Summer mostly.

6. No diseases, not zymotic, had unusually large prevalence.

7. No unusual fatality.

8. In regard to circumstances that seemed to indicate that scarlet fever had been communicated from one person to another, see cases of scarlatina mentioned above, under Scarlatina.

9. There is some advance in public sentiment and in views of individuals in regard to the importance of sanitary surroundings and means of preventing diseases. The introduction of a system for the supply of good water, by the Western Water Works Co., has led to individual discussion of sanitary needs in that and other directions.

J. H. MORGAN, M. D.

REPORTS FROM TOWNS

IN RELATION TO SANITARY IMPROVEMENTS, ETC.

For the purpose of presentation in this Report, as in the Reports heretofore issued, and in continuance of the design to keep well informed of all proceedings throughout the State, on the part of town or city councils, or any form of municipal authority, in the appointment of health officers or boards of health, in the direction of improvements which have in view and seem to promise the promotion of the public health; by the abatement of nuisances; the removal of unsanitary conditions and surroundings; or by the introduction of water for general use, or construction of sewers, or the establishment of other public works, which may not only be of great public utility and convenience, but also serve in some measure, large or small, in the prevention of disease, the Secretary has, as heretofore, solicited replies from the town and city clerks of the several towns and cities, or other municipal officers, in answer to questions proposed in a circular sent for that purpose.

It is hoped that a connected history may thereby be secured of all sanitary improvements of a public character in all parts of the State, from year to year, and the gradual awakening of the citizens of the different towns to the necessity of sanitary public measures shown, and also whatever intelligent appreciation of such necessity, and whatever public spirit in existence in the towns there may be, as manifested by the readiness with which needed sanitary measures are adopted.

The following is the form of circular sent at close of the year 1887:

CIRCULAR No. 75.

OFFICE OF SECRETARY OF THE STATE BOARD OF HEALTH.

48 WEYBOSSET STREET,
PROVIDENCE, R. I., Jan. 1, 1888.

To the Town Clerk:

It is, by statute law, made the duty of the Secretary of the State Board of Health to make inquiries of town or city clerks, or of the clerks of local boards of health, in regard to the general health and sanitary condition of the towns, and also in regard to measures taken for the improvement of the same.

The law reads as follows:

PUBLIC STATUTES, CHAPTER 83.

SEC. 6. The Secretary of the said Board shall make inquiry from time to time, of the clerks of town and local boards of health, and practicing physicians, in relation to the prevalence of any disease, or knowledge of any known or generally believed source of disease, or causes of general ill health, and also in relation to the proceedings of the said boards of health, in respect to acts for the promotion and protection of the public health, and also in relation to diseases among domestic animals, in their several towns and localities, respectively; and the said clerks of town and local boards of health, and said practicing physicians, shall give such information, in reply to said inquiries, of such facts and circumstances as have come to their knowledge.

The Secretary therefore respectfully makes the following inquiries:

1. Has any work for the promotion of public health been contemplated or completed in your town by the town authorities, or by private enterprise, during the year? If any, please state what.

2. If by introduction or extension of water service for general use, please state what proportion of the population, by estimation, was supplied with the same at the end of the year.*

* If not known by the person replying, please state where or of whom such information may be obtained.

3. If by sewerage, state what the aggregate length of sewers, by estimation or otherwise, and about what proportion of the population had drainage connection with them at the end of the year.*

4. If by new ordinances in abatement of nuisances, or in improvement in heating or ventilating public buildings, halls, school-houses, &c, or by drainage, or by compelling the removal of excreta, garbage, house refuse, &c., or for any sanitary purpose, please give terms and date of enactment of such town ordinance, or send copy of same, and also state how far, to your best knowledge, all the sanitary ordinances have been enforced. Copies of town ordinances especially desired.

5. Has your town any legal board of health beside the town council? If so, please give the names of the officers of the same.

6. Please give the names of the health officers of your town.

7. Has gratuitous vaccination been provided in your town during the past year? What proportion of the population was vaccinated, according to your best knowledge?

8. Have undertakers promptly sent in their returns of death? Please give names of any who do not. (See Public Statutes, Chap. 85, Sec. 1.)

Respectfully,

CHAS. H. FISHER,

Sec. State Board of Health.

N. B.—The town or other clerk should charge a remunerative fee for replying to the above circular, and present to the town council or board of health, it being a service required by law.

*If not known by the person replying, please state where or of whom such information may be obtained.

REPORTS FROM TOWN CLERKS

*In relation to the prevalence of disease, and to municipal proceedings
in regard to public sanitary improvements, and the
promotion of public health, &c.*

BRISTOL COUNTY.

BARRINGTON.

1. No particular work for the promotion of public health has been contemplated or completed in this town during the year.
4. No new ordinances for any sanitary purpose.
5. No board of health beside the town council.
6. Health officers, the Town Council: Lewis B. Smith, John F. Richmond, Wm. H. Bullock, Hiram F. Perry, Horace E. Medbury.
7. Gratuitous vaccination has not been provided in this town during the past year.
8. Undertakers have promptly sent in their returns of death.

MARK H. WOOD, *Town Clerk.*

Water for general use has been brought from the mains of the Kickamuit supply in Warren, the pipes passing under two rivers and the distribution at this time largely confined to the southern part of the town and around Nayatt Point. About thirty families or one hundred and fifty persons accommodated.

A fine building of elegant exterior and of ample accommodation for a town high school, and with rooms for the municipal offices of the town, has been erected on a commanding site in Barrington, at a cost of about twenty thousand dollars. For a town with population of about fourteen hundred persons, the above improvements are evidences of unusual enterprise.

C. H. F.

BRISTOL.

1. No special work for the promotion of public health has been performed during the past year.
2. About one-fourth of the population are supplied by water service.
3. A few private sewers have been constructed during the past year.
4. No new ordinances, &c. See ordinance published in annual Report State Board of Health, 1883.
5. The town has no legal board of health, except the town council.
6. Lyman B. Bosworth, Health Officer.

7. The Superintendent of public schools has authority to furnish gratuitous vaccination. The matter is attended to promptly.

8. Undertakers have promptly sent in their returns of deaths.

H. F. BENNETT, *Town Clerk.*

WARREN.

1. No especial work for the promotion of public health has been performed by the town authorities during the year.

2. A system of water works was constructed several years since, the source being the Kickemuit river. Its use is not general, but is gradually increasing.

3. The mill blocks of the Warren M'f'g. Co. were several years since connected with sewers (a private enterprise). Two other private sewers have been constructed, and one of them has been extended during the year.

4. No new sanitary ordinances have been adopted during the year.

5. The town has no legal board of health, except the town council.

6. Joseph M. Smith, Health Officer.

7. Gratuitous vaccination has been provided during the year, but the returns are not all in and I cannot estimate the number vaccinated.

C. B. MASON, *Town Clerk.*

KENT COUNTY.

COVENTRY.

1. No work for the promotion of public health contemplated or completed by the town authorities.

2. The Pawtuxet Water Co. at Phenix have put in water for quite a portion of the people in that vicinity.

3. No public sewerage.

4. No new ordinances for any sanitary purpose.

5. The board of health are: Frank B. Smith, M. D., G. Louis Wood, M. D., Charles L. Ormsbee, M. D., and John Winsor, M. D.

6. Health Officer, David W. R. Bennett.

7. Gratuitous vaccination has not been provided during the past year.

8. Undertakers' returns have been promptly made.

S. W. GRIFFIN, *Town Clerk.*

EAST GREENWICH.

1. No new work for the promotion of public health, except by extension of water service.

2. By extension of water service for general use, the proportion of the population supplied at the end of the year was about two-fifths.
3. No sewerage.
4. New sanitary ordinances appended.
5. No board of health beside the town council.
6. Health Officer, James H. Eldredge, M. D.
7. No gratuitous vaccination provided during the past year.
8. Undertakers have promptly sent in their returns of death.

E. STANHOPE, *Town Clerk.*

ORDINANCE XV.

AN ORDINANCE FOR THE PREVENTION AND ABATEMENT OF NUISANCES, ETC.

SECTION 1. It shall be the duty of the Town Sergeant of this town to examine into the state and condition of every place in the compact part of this town where he shall suspect or be informed that there exists any matter or thing which is or may be prejudicial to the health of the inhabitants thereof.

SEC. 2. Whenever it shall appear to the satisfaction of the Town Sergeant that there exists, upon any premises owned or occupied by any person or persons, any dirt or offal, or any animal or vegetable matter, or the contents of any hog-pen, privy, drain, vault, slaughter-house or fish market, or any other substance or matter liable to injure health, or by noxious or disagreeable air to annoy the neighborhood, it shall be his duty to notify or cause to be notified, in writing, the owner, occupant or occupants of such premises of the existence of such nuisance or annoyance, and to direct, or cause to be directed, in writing, such owner, occupant or occupants to forthwith abate the same; and if such nuisance or annoyance shall not be abated within twenty-four hours after such notice, the Town Sergeant shall notify the Town Clerk in writing, setting forth the particulars of such nuisance or annoyance as near as may be; whereupon the Town Clerk shall issue his warrant calling the Town Council together within twenty-four hours to take such action thereon as they shall think best to abate the said nuisance or annoyance; and the owner, occupant or occupants of such premises, if he or they shall suffer such nuisance or annoyance to remain after the notice aforesaid, shall be liable to pay a fine of not less than five nor more than twenty dollars, said fine to enure, one-half thereof to the use of the complainant and one-half thereof to the use of the town.

SEC. 3. For every examination by the Town Sergeant under the provisions of this ordinance he shall receive the sum of fifty cents, provided such examination be made at the request of the owner or lessee of any premises affected by any nuisance; and for every report made to the Town Clerk upon such examination he shall receive the additional sum of twenty-five cents, said sum or sums to be paid by the Town Treasurer upon the order of the Town Council.

[Passed October 1, 1887.]

ORDINANCE XIX.

AN ORDINANCE IN RELATION TO VACCINATION.

SECTION 1. No child shall be admitted into any public school in this town until a certificate shall be presented to the principal teacher of such school from some physician in good standing, setting forth that such child is properly vaccinated.

SEC. 2. Any teacher violating this ordinance shall forfeit and pay a fine of five dollars for each and every offence.

[Passed October 1, 1887.]

E. STANHOPE, *Town Clerk.*

WEST GREENWICH.

1. No particular work for the promotion of public health.
2. No water service for general use.
5. No board of health beside the town council.
6. The town council are the health officers.
7. Gratuitous vaccination was not provided in this town during the past year.
8. So far as I know, the undertakers' returns have been promptly sent in.

W. N. SWEET, *Town Clerk.*

WARWICK.

1. No work for the promotion of public health, except by introduction of water service in the village of Phenix.
2. The proportion of the population supplied with the same at the end of the year I should say was not over one-tenth of the entire population.
3. No public sewerage.
4. No new ordinances enacted in relation to sanitary matters.
5. This town has no legal board of health beside the town council.
6. Health Officer, Albert G. Sprague, M. D.
7. Gratuitous vaccination has been provided during the past year. The proportion of the population vaccinated was about one-sixtieth.
8. Undertakers have promptly sent in their returns of death.

J. T. LOCKWOOD, *Town Clerk.*

NEWPORT COUNTY.

JAMESTOWN.

1. No work for the promotion of public health, except passing ordinances.
2. No introduction of water service for general use.
3. No public sewers.

4. See copy of ordinances appended.
5. No board of health beside the town council.
6. Health Officer, Abbott Chandler.
7. No general gratuitous vaccination has been provided since September, 1885. Nearly all the children of school age and under.
8. Undertakers have promptly sent in their returns of death; but some do not have undertakers, and those are not all in yet.

J. E. WATSON, *Town Clerk.*

At a meeting of the Town Council, acting as a Board of Health, in Jamestown, R. I., Monday, August 22, 1887. Full Board, present.

In pursuance of Chapter 38 of Title VII. of the Public Statutes, entitled, "Of the Town Council," and of Chapter 79, Title XIV., of the Public Statutes, entitled, "Of Nuisances," and of Chapter 495 of the Public Statutes of January Session, 1887, the following ordinances were passed and adopted:

1st. That before any well, cesspool or any drainage shall be hereafter located or constructed, the same shall first be submitted to the Health Officer or the Council for approval, and shall be constructed in accordance with the direction of the said Health Officer, unless altered by the Council.

2d. No well or cesspool, no receptacle for solid or liquid refuse matter, garbage or other offensive matter, already constructed, shall be maintained, except under the direction of the Health Officer, with the approval of the Town Council.

3d. All property owners having drain pipes running into the Bay shall extend the same into the Bay to a point at least fifteen feet below low water mark, and that said pipes shall be properly trapped.

4th. The Clerk is ordered to post copies of these Ordinances in three public places in said Jamestown.

A true copy.

Attest:

JOHN E. WATSON, *Council Clerk.*

Whether these ordinances have been enforced or not, I do not know. Don't think they have in reference to the digging of wells, &c. J. E. W.

LITTLE COMPTON.

1. Nothing for the promotion of public health contemplated or completed in this town, by the town authorities or by private enterprise, during the year, to my knowledge.
2. No water service for general use.
4. Nothing new as to ordinances in abatement of nuisances, or otherwise for health purposes.
5. No legal board of health other than the town council.
6. Health Officers: O. C. Brownell, W. H. Briggs, O. H. Almy, P. W. Almy, D. Wilbur.

7. Gratuitous vaccination has been provided during the past year. The proportion of the population vaccinated was about one-twentieth.

8. Undertakers have promptly sent in their returns of death.

F. R. BROWNELL, *Town Clerk.*

MIDDLETOWN.

1. A petition to the General Assembly, asking for the passage of a law prohibiting the bringing of house offal and swill into Middletown from any other town or city, was circulated and numerous signed in January last and presented soon after to the Assembly; in response to which, Chapter 622 of the Public Laws was enacted.

2. No introduction of water service was made in this town in the year 1887.

3. No system of sewerage was begun in this town during the year 1887.

4. No new ordinances in relation to the public health were enacted during the year 1887. Diligent attention has been given by the Health Officer of Middletown to the enforcement of Chapter 622 of the Public Laws.

5. The town council is the only board of health in Middletown.

6. John Peckham, Health Officer.

7. No provision was made by the town council for the gratuitous vaccination of the people in the year 1887.

8. Returns of death have been sent to the town clerk with some irregularity. In some cases promptly; in some cases there has been delay.

Since the swill and offal of Newport has been prohibited from being brought to Middletown, the chief menace to the health of its citizens has been removed and the sanitary condition of the town vastly improved.

A. L. CHASE, *Town Clerk.*

NEW SHOREHAM.

No report from the Town Clerk. The work of opening the Great Pond has been progressing, however, and many sanitary improvements of a private character have been made.

PORTSMOUTH.

1. As to any work for the promotion of public health, nothing has been done.

2. No water service for general use.

3. No sewerage.

4. No new ordinances in abatement of nuisances, or for any sanitary purpose.

5. No board of health except town council.

6. Names of the Health Officers, members of town council: Stephen A. Watson, Fillmore Coggeshall, Robert D. Hall, Edward Almy and Henry Anthony.

7. No gratuitous vaccination been ordered.

8. Our own undertakers are very prompt.

P. B. CHASE, *Town Clerk.*

TIVERTON.

1. No new work for the promotion of public health has been contemplated by the town authorities during the year.
2. No water service for general use.
3. No public sewerage.
4. No new ordinances for sanitary purposes.
5. The legal board of health, the town council.
6. Health Officers: George R. Lawton, James W. Counsell and Christopher Manchester.
7. No gratuitous vaccination provided during the past year.
8. All known undertakers have promptly sent in their returns of death.

J. T. Cook, *Town Clerk*.

NEWPORT CITY.

No report from the City Clerk.

The organization of a city board of health, and the commendable activity of the board, have been of greater benefit to the city of Newport, in a sanitary point of view, than the average citizen realizes. As the years go by, the beneficent results will be more evident.

The Newport Sanitary Protection Association, begotten and brought into active life by the necessity of the times, the precursor, and, in a large measure, the progenitor of the city board of health, has found its work in part performed by the city board; and the public sanitary sentiment which it created and fostered until it became a recognized factor, and a power in Newport society, is performing another part of its work, so that the association, having accomplished so much, can now honorably and reasonably relinquish, in considerable part, the activity of its early life, to those forces which are so largely the offspring of its begetting.

C. H. F.

Extracts from the Inaugural Address of Mayor J. H. Powell, of Newport, having relation to the public health :

HEALTH.

This city has, I am happy to be able to state, escaped during the past year from any serious or considerable visitation of sickness of any fatal kind, and we should be devoutly thankful that such has been the case, for cities not far from us have been visited by a terrible outbreak of scarlet fever, typhoid fever, diphtheria and kindred foul air diseases. In the city of Philadelphia lately there were five hundred cases of typhoid fever, engendered by defective surface drainage, it is stated, in only *one ward* of the city. The executive officer of the board of health informs me that the total number of deaths in this city during 1887 was three hundred and eight. The number of all cases of contagious or infectious diseases was three hundred and forty, as follows : Measles, two hundred and seventy-eight ; deaths, ten. Scarlet fever, thirty-two ; deaths, two. Diphtheria, seven ; deaths,

two. Typhoid fever, twenty-three ; deaths, five. Total number of births during 1887 was two hundred and eleven. This probably does not show the whole number of births, as they are not all reported to the office. The city physician vaccinated ninety-five children at the office of the board of health during September, 1887. This immunity from disease which we have enjoyed does not arise from any want of encouragement in certain portions of the city, for there is a most woful want of drainage and culpable lack of sanitary precaution shown in many places. The lack of public sewers to enter renders it impossible in many, and some of the worst, instances to effect more, on the part of the health authorities, than, after much trouble, to have the places cleaned out, only to fill up again in a short time, and the same process to be gone over again. The establishment of the main trunk sewer, now in process of construction, will, it is hoped and believed, be a step in the direction of having some of the difficulties mentioned remedied in the near future, and a change in the present state of things cannot come about too quickly. There should, as soon as feasible, be some legal remedy furnished to empower the proper authorities to compel householders to enter the public (or private) sewers when necessary for the protection of health. In cases of the so-called tenement houses, where the greatest hardships and risk to life and health occur, for they often contain several families crowded together, and are old, ramshackle buildings, bought for a song and from parsimony or callous disregard of consequences on the part of landlords, having nothing done to them to render them fit for human beings to live in, are hired to poor people, who have to take them as they are. There should be authority vested in the board of health, or aldermen, to order the buildings vacated until they are put into a reasonably safe condition, and thus compel the landlord to pay some regard to the lives of other people. I have had cases brought to my attention during the year that it should have been possible to have remedied without delay, but were remedied, and then but temporarily, after much delay and trouble. It would, I think, be a good plan if some one was contracted with by the city to empty cess-pools, etc., that needed prompt attention at a fixed price per load, whenever called upon, when the vaults, etc., are ordered to be emptied by the inspector of nuisances, for during part of the year it is next to impossible to have such matters attended to, as the men and teams who usually do such work are engaged at other work. I have known of long delays in such cases when it was at much risk to public health to have them occur. The board of health has shown a commendable watchfulness over the health of the city so far as their too limited powers allow, and have guarded against the spread of contagious diseases and looked after the sanitary condition of the town, and I am confident, from personal knowledge, that if it had not been for the prudence, care and wise precautions of the president of this board in some instances, notably, which came to my knowledge, most serious trouble and complications would have arisen. The board of health is seriously crippled in point of usefulness by its much too limited powers, which not only prevent much needed work being accomplished, but has a most discouraging effect upon the members of the board.

The inspector of nuisances has performed his important duty conscientiously and in a most satisfactory manner. He has many serious difficulties to contend with oftentimes, but has accomplished the all-important matter of keeping the city clean to a most satisfactory point, and has been prompt and efficient in at-

tending to the disinfecting of all places where contagious or infectious disease existed. He has also performed much work in flushing the sewer-eyes and in disinfecting vaults, etc., where cases of contagious or infectious disease had existed.

PUBLIC PARKS.

The public parks of this city were placed, at the beginning of the last municipal year, in the hands and care of the committee on public parks, instead of being cared for as formerly. They have been well taken care of, and have been a pleasant and much frequented resort for numberless people, both residents and strangers. Tonro Park and Washington Square Park presented an unusually neat and creditable appearance, especially the latter, with its bright flowers and spray fountain. Morton Park, the gift of Hon. Levi P. Morton to the city, is as yet undeveloped, the only steps taken having been an appropriation made by council for a new fence to be placed around it, and a topographical map and plan for its improvement prepared by the city engineer. There was a movement placed on foot during the early part of the year to ascertain if some arrangement could be made with the Old Colony railroad by which the city could get possession of the so-called "Basin" near the railroad depot, for the purposes of a park after filling in the "Basin," and through the kind intervention of a lady, one of our summer residents, who took much interest in the project, the matter was put in train. The matter was referred to a committee, and nothing further has ever been done to my knowledge. It may be as well, if, while touching on the subject of the city parks, I repeat what I said last year on the subject of the necessity of the committee having charge of the parks giving strict attention to the matter of cleaning the sidewalks of snow, for if the city does not set the example in this matter, it adds vastly to the difficulty of accomplishing this most troublesome and vexatious matter—difficult enough at any time.

DUMP GROUND, WASTE LAND AND SWILL.

The question of a suitable and safe "dump ground" grows each year more vital, as the space now used for depositing the city's refuse grows less and less, and it is one that will be only the part of prudence to forestall. The only places available at present for the deposit of ashes, etc., are at Marchant street, the north side of the cove, by Marsh street, and "Briggs' wharf." The latter place will be available but a short time longer, as the space deeded to this purpose is two-thirds filled, and but little remains. The north side of the cove is much in the same condition, and the sooner that is filled the better, for it is a foul place at low tide and the emanations of gas from the mud and detritus resting upon it are often during hot weather noisome in the extreme. The inspector of nuisances has kept the "dumps" in a very satisfactory manner and has done his duty in the matter. The low land at Marchant street ought to be filled in as rapidly as it is possible, for it is in a very undesirable condition and might easily in times of certain epidemics become dangerous. The kindred question of how to dispose of the city's swill has troubled the minds of the committee intrusted with its solution for some months. It was determined to take definite action on the matter, the committee was appointed to investigate the question of disposal and

to report the result of their investigations on some *permanent* mode of disposal. They will doubtless make a report shortly, and, in the meantime, without wishing or endeavoring to frustrate the report, I will say that, after going into the question of contracting for a term of years with certain persons from away, to remove the offal in scows, etc., they turned their attention to the subject of cremation, which is acknowledged, on all hands, to be the most successful and effectual method of getting rid of such matter. The committee conducted an experiment in this direction on their own account with success, and have corresponded with various cities, investors and patentees of cremators, but, so far, have made no report. It is a question that must be determined speedily, but it should be settled surely, for it is a thing that could prove a doubtful improvement if an imperfect form of cremator was decided upon.

PROVIDENCE COUNTY.

BURRILLVILLE.

1. No work for the promotion of public health has been contemplated, except as stated below.
2. There is no water service here at present. A movement looking toward the introduction of a public water supply is under way.
3. No public sewers.
4. No new ordinances.
5. No board of health beside the town council.
6. Oliver A. Inman, Health Officer.
7. No vaccination done last year. At a meeting of town council Dec. 31, 1887, a committee was appointed to secure physicians to vaccinate the public school children at once.
8. Undertakers have been very prompt in their returns.

ALVAH MOWRY, *Town Clerk.*

CRANSTON.

1. Nothing new for the promotion of public health contemplated by the town authorities.
2. No extension of water service for general use known to me.
3. No public sewerage.
5. We have a Superintendent of Health—Dr. Bradbury.
6. The Health Officers are the Town Council, as follows: James A. Budlong, George E. Babbitt, Ebenezer B. Fiske, Robert T. Thurber, Elisha S. Arnold, Marcellus J. Flanders, Eleazer Tandy.
7. No gratuitous vaccination has been provided during the past year.
8. Undertakers have promptly sent in their returns of death.

J. M. WHEELER, *Town Clerk.*

CRANSTON.

1. On the Cranston side of the village* it has been proposed and will probably soon be carried, to run a sewer of ample capacity the entire length of the main street, to empty into tide water at the bridge.

2. The Pawtuxet water is very generally supplied throughout the village, and its use is steadily increasing.

3. The sewerage of the village has hitherto been very imperfect and inadequate, but there is much hope for the near future, as the people are beginning to appreciate its importance.

4. I am not informed of any new ordinances on the subject, but our local farmers are ambitious to clean out the village privies for fertilizing purposes.

5. No legal board of health beside the town council.

7. The schools are regularly visited, I think, twice a year. No scholar is admitted without evidence of a protective scar.

8. Undertakers have promptly sent in their returns of death, to the best of my knowledge.

CUMBERLAND.

1. Nothing new for the promotion of public health contemplated by the town authorities during the year.

2. In regard to extension of water service for general use, see Report of Pawtucket Water Commissioners.

3. No public sewers.

4. No new ordinances in abatement of nuisances or for other sanitary purposes.

5. The legal board of health, the town council.

6. Health Officer, Thos. J. Smith, M. D.

7. No gratuitous vaccination provided during the year.

P. F. KINION, *Town Clerk.*

EAST PROVIDENCE.

1. Nothing for the promotion of public health has been contemplated in this town by the town authorities during the year.

2. By extension of water service for general use, the proportion of the population supplied at the end of the year estimated at one-half of the whole. See Report of Pawtucket Water Commissioners.

3. No increase in the number of sewers, and but two connections to the sewers this year.

4. No new ordinances in abatement of nuisances.

5. The board of health, the town council.

6. Dr. George E. Carpenter, Health Officer.

* Pawtuxet.

7. The town pays for vaccination, and about 100 have been vaccinated this year.

8. Undertakers have promptly sent in their returns of death, so far as I know.

W. L. SUNDERLAND, *Town Clerk.*

FOSTER.

No report from the Town Clerk.

GLOCESTER.

1. Nothing new for the promotion of public health contemplated by the town authorities during the year.

5. No legal board of health beside the town council.

6. George A. Harris, M. D., Health Officer.

7. As to gratuitous vaccination having been provided in this town during the past year, I have no knowledge of the matter.

8. Undertakers have promptly sent in their returns of death.

C. W. FARNUM, *Town Clerk.*

JOHNSTON.

1. No work for the promotion of public health contemplated by the town authorities.

2. Some extension of water service for general use. The proportion of the population supplied with the same at the end of the year I have no means of knowing. See Report of City Engineer of Providence.

3. No sewers constructed.

4. No new ordinances in abatement of nuisances or for other sanitary objects. So far as I am able to judge, the health officers have enforced the ordinances respecting the sanitary condition of the town.

5. The legal board of health is the town council.

6. The Health Officers of the town are: Eugene F. Hamburg, M. D., Elmer S. Fiske, M. D., Charles A. Barnard, M. D., Thomas C. Lawton, M. D., William A. Carroll.

7. No gratuitous vaccination provided during the past year.

8. So far as I know, undertakers have promptly sent in their returns of death.

W. F. KING, *Town Clerk.*

LINCOLN.

1. No unusual work for the promotion of public health contemplated by the town authorities during the year.

2. By extension of water service for general use, the proportion of the popu-

lation by estimation supplied with the same at the end of the year was about 90 per cent. See Report of Pawtucket Water Commissioners.

3. No extension of public sewers since last report.
5. No legal board of health beside the town council.
6. Health Officer, Dr. A. A. Mann.
7. No gratuitous vaccination provided by the town during the past year.
8. Undertakers have been quite prompt during the past year.

WM. H. GOODING, *Town Clerk.*

NORTH PROVIDENCE.

1. Nothing new for the promotion of public health by the town authorities during the year.
2. No extension of water service for general use.
3. No sewers.
4. See ordinances appended.
5. The only legal board of health is the town council.
6. Health Officer, Henry F. Brown.
7. No gratuitous vaccination provided.
8. Undertakers have done very well in sending in returns of death.

T. H. ANGELL, *Town Clerk.*

ORDINANCES OF NORTH PROVIDENCE.

CHAPTER XIV.

DEAD ANIMALS.

SECTION 1. It shall be the duty of every person who shall have any horse, ox, mule, cow, bull, sheep, dog, or other animal, die in this town, except such as are slaughtered for food, to bury or cause the same to be buried within twenty-four hours after the death of such animal, so that every part of such animal shall be at least three feet below the surface of the ground where such animal shall be buried.

SEC. 2. No person shall bring or cause to be brought into this town the dead body of either of the aforementioned animals, except slaughtered animals for the purpose aforesaid, and leave or cause the same to be left within this town, unless the same and every part thereof shall be buried at least three feet below the surface of the ground where the same shall be buried.

SEC. 3. Any person violating the provisions of this ordinance shall be fined not less than five nor more than twenty dollars, or be imprisoned not exceeding ten days in the Providence county jail.

CHAPTER XV.

NUISANCES.

SECTION 1. No person shall keep any swine or fowls in this town, unless the same are kept in such a manner that the inhabitants of the neighborhood are not annoyed thereby.

SEC. 2. No person shall suffer filthy water to collect on his premises, or premises occupied by him, so as to be prejudicial to health, or an annoyance to the neighborhood, or cause or suffer the same to run into any public street or highway in this town.

SEC. 3. No person shall throw any ashes, cinders, shavings, manure, oyster, clam, lobster or other shells, or filth, into any of the streets or highways of this town, nor carry the contents of any sink, cesspool or privy in or through any of said streets or highways, in any vessel whatever, unless said vessel is so constructed as not to scatter or leave the contents.

SEC. 4. Any person violating the provisions of the preceding sections of this ordinance shall be fined not less than two nor more than five dollars for each and every offence.

SEC. 5. There shall annually be appointed, by the town council, one or more health officers, who shall perform the duties of said office for one year and until their successors have been appointed and qualified; provided, however, that the said town council may remove either or all of said health officers, for cause, at any legal meeting of said town council.

SEC. 6. It shall be the duty of every health officer of this town to examine into the state and condition of every place and part of said town where such officer shall suspect or be informed that there exists any matter or thing which is or may become an annoyance or injurious to the health of the inhabitants thereof.

SEC. 7. Whenever it shall appear to the satisfaction of any health officer that there exists upon any premises owned or occupied by any person any dirt or offal, or any animal or vegetable matter, or the contents of any hog-pen, cow-yard, poultry-yard, barn, privy, drain or vault, to the annoyance or injury to the health of the neighborhood, it shall be the duty of such health officer to cause the owner or occupant of such premises to be notified in writing of the existence of such nuisance or annoyance, and to direct such owner or occupants forthwith to remove or abate the same; and if such nuisance or annoyance shall not be abated within twenty-four hours after such notice, such owners or occupants shall, for each and every day they shall suffer such nuisance or annoyance to remain after the notice aforesaid, be fined not more than twenty dollars nor less than five dollars.

SEC. 8. If such nuisance or annoyance shall not be abated by the owners or occupants of the premises where such nuisance or annoyance exists, at or before the expiration of the notice mentioned in the next preceding section of this ordinance; and if, in the opinion of such health officer, the expenses of abating the same will not exceed ten dollars, then it shall be the duty of such health officer to forthwith cause such nuisance or annoyance to be abated, and the town council shall order the expenses thereof not exceeding ten dollars to be paid out of the town treasury of this town to the officer abating the same, which said expenses, so paid as aforesaid, shall be recovered from the party causing or continuing said nuisance or annoyance, in an action of debt in the name of the town treasurer of this town, before any court of competent jurisdiction.

SEC. 9. Whenever it shall appear to the satisfaction of any health officer that there exists upon the premises owned or occupied by any person any matter or thing injurious to the health of the inhabitants of this town, or which, in his

judgment, may originate or conduce to the spreading of any infectious or contagious disease, and that the expense of abating such nuisance or other cause dangerous to health shall be estimated at more than ten dollars, it shall be the duty of such health officer, as soon as the exigency of the case shall reasonably require, to report the same in writing to the town council, setting forth the particulars of such nuisance and the probable expense of removing the same, as nearly as may be, and the owner or occupant of the premises upon which such nuisance or nuisances exist, or the person who may have caused, continued or permitted the said nuisance or nuisances, shall be forthwith notified to appear before the town council, at such time as the council shall appoint, to show cause, if any, why said nuisance shall not be abated or removed. And said council, upon satisfactory evidence to them submitted that said nuisance exists, may order the health officer, town sergeant, or either of the constables or police officers of this town, forthwith to abate the same, and the expenses thereof shall be paid out of the town treasury, and be recovered from the party causing or continuing the same, in the same manner as is prescribed in the next preceding section of this ordinance.

CHAPTER XX.

VACCINATION.

SECTION 1. The town council shall annually in the month of October appoint one or more physicians to gratuitously vaccinate the inhabitants of this town, under such rules and regulations as the town council may see fit to adopt.

Attest:

T. H. ANGELL, *Town Clerk.*

NORTH SMITHFIELD.

1. Nothing new for the promotion of public health contemplated by the town authorities during the year.
2. No water service for general use.
5. No board of health beside the town council.
6. Health Officer, Joshua Wardle, Slatersville.
7. Gratuitous vaccination not provided during the past year.
8. No undertakers located in this town.

B. A. ANDREWS, *Town Clerk.*

PAWTUCKET.

1. The city authorities have been very liberal in the appropriation of money for the maintenance and extension of the water supply, and of sewerage, and for the enforcement of sanitary ordinances.
2. See Report of Water Commissioners and Supt. of Water Works, appended.
3. See Report of Sewer Commissioners, appended.
5. The Board of Aldermen.
6. Health Officer, George H. Stanley, M. D.

7. Gratuitous vaccination has been provided during the past year.

8. Undertakers have promptly sent in their returns of death.

The Water Works of Pawtucket extend into other towns, and the following Reports will show the amount of such extension for the year ending Nov. 30, 1887. The various statistics are given in considerable detail, as matters of information to citizens of other towns, in which the introduction of water for general use is contemplated.

C. H. F.

EXTRACTS FROM THE REPORT OF WATER COMMISSIONERS.

In our sixth and seventh annual reports we were obliged to report a large amount of work in an unfinished condition. We congratulate ourselves on now being able to report these departments of work as practically completed.

The Diamond Hill reservoir was finished in October last. The city council and other officials, accompanied by a large number of interested tax-payers, visited the premises, by invitation of the Superintendent, on the 18th of October. The hearty commendation of those present was very gratifying to the Commissioners. The magnitude and character of this work, and its necessity, were fully appreciated, and the visit was productive of good results.

The Happy Hollow dam was completed in November. It is a substantial structure, and warrants the statements of practical engineers that it can never be disturbed by freshets, and its appearance indicates durability and lasting economy.

The need of greater pumping facilities, for the future wants of the city, has long occupied the attention of the Commissioners, and the rapid increase of the demand for water by the city and its customers has satisfied us that the work should not be longer delayed. We have therefore selected a site for the new pumping station on the easterly bank of the Blackstone river, on the southerly side of the East Providence Branch Railroad. The water will be taken from the Happy Hollow Pond in a 36-inch conduit under the railroad to the filter gallery, from whence it will be pumped direct into the distributing pipes and Stump Hill reservoir.

As the details of the work are given at considerable length in the report of the Superintendent, we suggest a careful reading of that document by those desiring further information.

* * * * *

The financial condition of the works, their general character for durability and their ability when fully completed to do the work for which they were constructed, should be very gratifying to the tax-payers, as it certainly is to the Commissioners.

We respectfully ask an appropriation of \$25,000 for general construction to cover wants of the

East Providence Division, say.....	\$5,000 00
Lonsdale and Valley Falls Division, say.....	3,000 00
Pawtucket Division.....	17,000 00
	<hr/>
	\$25,000 00

* * * * *

In concluding this report, permit us again to testify to the faithful and efficient services of the Superintendent, Edwin Darling, Esq., in all departments of the work.

Thanking the City Council for their confidence in the Commissioners, as shown by their prompt action upon, and approval of, our recommendations, we ask your continued confidence, and the approval of our fellow citizens, the only compensation we receive for our services.

LUCIUS B. DARLING,	} <i>Water</i>	
ROBERT D. MASON,		} <i>Commissioners.</i>
OLNEY ARNOLD,		

FROM THE REPORT OF THE SUPERINTENDENT OF WATER WORKS.

A gratifying result of the year's work is the completion of the Diamond Hill reservoir and Happy Hollow dam.

The Diamond Hill reservoir was formally completed in October, and on the 18th the event was duly celebrated by about four hundred gentlemen, including the city government, members of East Providence, Lincoln and Cumberland town governments, and tax-payers, who gathered to inspect the work; if need be, to criticise; if worthy, to commend.

Even the location of the Diamond Hill reservoir dam was unknown to many of the party, but on visiting the grounds it was unanimously agreed that nature had provided the proper place for the reservoir, and the efforts and labors of man had accomplished results that were not only a credit, but indicated good judgment of the needs of the works, and wisdom in improving the possibilities thus afforded by nature.

The new dam at station No. 2 has been completed, and, with the bridge, is an ornament as well as an enduring structure, that was compelled to be made by the action of the elements in February, 1886.

The full value of this dam can only be appreciated when viewed in connection with the contemplated building of station No. 3.

A 36-inch main with proper gates for a conduit leading to the site of the new station has been laid through the dam and is ready to be connected.

Any allusion to the new station, as far as your Honorable Board is concerned, would seem needless, but for the information of the many who will examine the reports of the city departments, it will be wise to explain in detail somewhat the necessity calling for another station and the proposed plan of meeting the need. Allow me, then, to assume that the city is engaged in the business of selling water. First, as a necessity for the protection of property from fire, and for domestic and manufacturing needs. Second, as a business with parties outside the city limits.

We have the raw material "water" in stock and in transit, and it remains for us to transport it to our storehouses, the pipes and reservoir, in order that we may deliver the goods as called for. Our only method of transportation is by means of pumping facilities. Those now in operation are inadequate for the future, and, as a consequence, more must be supplied. After a careful survey

of the situation and needs, present and future, the only practical plan that can be devised is the erection of another station.

The best location for this pumping station is about five hundred feet south of the Valley Falls pumping station, on the easterly bank of the Blackstone river, on land owned by the city.

From this station the water will be pumped through a 36-inch main laid across and below the river bed and connecting with the distributing mains already laid, wherever crossed by this larger force main, thus adding new supply to existing mains, and creating new sources and reinforcements to the whole city and plant of pipes from Wilkesbarre Pier in East Providence to Ashton in Cumberland. When completed, this station will form a combination of pumping facilities seldom found in any water works.

The three stations are on the same level and may be worked in unison or separately, each being independent and each pumping against the same pressure, and in case of disability of either, the others can pump through the delivery of the disabled pump, or the same pipe as originally intended, thus rendering it impossible to shut off the supply from the pumps.

The new filter gallery, covering 2,000 or more square feet, will also be connected, so that either station can be supplied from either gallery, or either gallery can be directed to a single station.

There has been some complaint during the summer of the quality of the water, for which there was a cause, as during the building of the new dam at Valley Falls it was necessary to draw the water too low to use the filter, and as a consequence we were obliged to pump direct from the pond. Immediately on the completion of the work, the water was raised and carried through the filter, since which not a single complaint has been reported, which fact speaks volumes for the filter.

The general work of extension for the year has been of the regular routine order, but ever widening, enlarging and expanding. Of extensions really needed there is no end. The number of services called for increases; in fact, a rapid growth is indicated at every avenue of the works.

EXTENSIONS DURING THE YEAR.

There were laid, of 6-inch pipe, 9,858 feet.

" " " " 4-inch " 2,602 "

" " " " 2-inch " 2,840 "

" " " " 1½-inch " 377 "

" " " " 1¼-inch " 700 "

Total length of mains, 98+ miles.

* * * * *

ADDITIONAL HYDRANTS.

In Pawtucket..... 5

Central Falls..... 1

Valley Falls..... 5

Ashton..... 3

Lonsdale..... 3

East Providence..... 1

Previously in use, 753.

APPLICATIONS.

Applications for water have been made as follows:

In Pawtucket.....	207
On Lonsdale and Valley Falls Division.....	36
“ East Providence Division	39
“ Central Falls “	55
“ Ashton “	13
Total of.....	350
Add to these.....	4448
That was claimed should be accounted for in the last report and we have.....	4898
By removal of buildings and other causes this number should be reduced to about.....	4800

NEW SERVICES.

In Pawtucket.....	204
Lonsdale and Valley Falls Division.....	35
Central Falls Division.....	55
East Providence Division.....	35
Ashton Division.. . . .	14
Total.....	343
Previously in use.....	4452
Total in use.....	4795

Several combinations have been made of services and a few closed permanently, leaving about 4775 in actual use.

* * * * *

RECEIPTS.

For water in Pawtucket.....	\$54,502 91
For water from Lonsdale and Valley Falls Division	15,291 25
For water from East Providence Division.....	7,385 98
For water from Ashton Division.....	450 77
For water from Central Falls Division.....	12,760 68
	<hr/>
	\$90,391 59
For stock furnished and labor performed.....	8,420 49
	<hr/>
	\$98,812 08

* * * * *

EXPENSES.

Home extension, construction, meters, etc..	\$22,559 15
Lonsdale and Valley Falls Division.....	4,961 90
East Providence Division.....	603 19
Diamond Hill Reservoir and Gate House....	15,619 41

New Dam.....	12,642 44	
Unexpended.....	34 40	
		\$56,420 49
Net cost of works to date.....		\$1,336,658 33
Bonded debt, \$500,000 00 at 5 per cent.		
Bonded debt, 600,000 00 at 4 per cent.		
Notes, 236,658 33		
Total receipts for water to date.....		\$533,532 73
* * * * *		

There has been an urgent call for quite an extension of pipe on the East Providence Division, but as the call came late in the season, the difficulty to obtain pipe rendered it impossible to comply with the request during the present season, but it is hoped that the early spring will place us in position to meet the demands.

There is no large outlay indicated on the other outside divisions for the year to come, and a general steady demand for extension in the home division may be expected.

Should the weather permit, there is quite an amount of work that will be finished before winter closes in.

The following tables of the pumping stations have been compiled by Mr. John H. Walker, the chief engineer, and are annexed to and made a part of my report:

ABRIDGED REPORT OF J. H. WALKER.

RECORD OF OBSERVATIONS AT NO. TWO STATION—*Water Power.*

Five months ending April 30, 1887.

Number of days pumping.....	55
Total pumping time.....	1,201.10
Total revolutions.....	2,947,443
Average revolutions per minute.....	48.89
Coal used for heating building.....	24,600
Average head against pumping feet.....	271.08
Total number of gallons pumped.....	64,848,939

RECORD OF OBSERVATIONS AT NO. TWO PUMPING STATION—*Steam Power.*

For the year ending November 30, 1887.

Number of days pumping.....	271
Total pumping time.....	3,476.16
Average pumping time.....	12.16
Total revolutions.....	9,688,134
Average revolutions per minute.....	46.43
Total coal consumed.....	1,284,801
Average head against pump in feet. No allowance for friction in suction.....	309.14
Total number of gallons pumped.....	406,000,631

RESULTS OF OBSERVATIONS AT NO. ONE PUMPING STATION.

For the year ending November 30, 1887.

Number of days pumping.....	310
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Total pumping time.....	5,924.06
Average pumping time per day.	19.04
Total revolutions.....	16,699,436
Average revolutions per minute.....	46.98
Coal—	
Starting fires.....	72,785
Pumping.....	1,209,622
Banking.....	26,800
Heating building.....	14,435
Total.....	1,323,642
Total number of gallons pumped.....	688,450,948
Average number of gallons pumped per pounds of coal consumed, excluding heating when not pumping.....	525.85
Average number of gallons raised 100 feet per pound of coal con- sumed	1,425.85
Average head against pump in feet. No allowance for friction in suction.....	274.14
Average duty in lbs. of water raised 1 foot high, per 100 lbs. of coal; calculated on total coal used for all purposes; no deduc- tion for ashes and cinders.....	120,168,911
Average duty in lbs. of water raised 1 foot high per 100 lbs. of coal; calculated on total coal used for starting, pumping and banking; no deduction for ashes and cinders.....	121,417,482
* * * * * * *	

NUMBER ONE AND TWO STATIONS.

Total number of gallons pumped.....	1,159,310,518
Cost of raising 1,000,000 gallons into reservoir.....	\$9 67
Cost of raising 1,000,000 gallons one foot high.....	1 0332
Average daily consumption of water in United States gallons.....	3,176,193
Total increase in gallons over last year.....	348,682,875
Average daily increase over last year.....	955,295

J. H. WALKER,

Chief Engineer of Pumping.

* * * * * * *

In closing my eighth annual report, I desire to thank His Honor the Mayor and the City Council for their hearty support and ready action in cases of emergency, thereby enabling us to produce results which we trust will be satisfactory, not only to themselves, but to the citizens they represent. I would also thank your honorable board for the confidence reposed in me, and trust that my labors are duly appreciated by you and the citizens generally. I can only speak in terms of commendation of the employés as a whole, as I am convinced that each and every one has performed his varied duties with fidelity to the interests of the works.

EDWIN DARLING, *Superintendent.*

EXTRACTS FROM THE REPORT OF THE SEWER COMMISSIONERS.

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FLUSH TANKS.

There have been added to our works during the past year five automatic flush tanks (Rogers Field new pattern), making the total number to date twenty-two. These tanks continue to work perfectly; some have been in continuous operation for over three years. They have cost nothing for repairs, and they have kept the sewers to which they were attached in a perfectly clean condition. The only outlay the past year for cleaning sewers proper has been the one hundred and ninety-five dollars paid the Water Department for water for flush tanks. We have included in our estimate of expense for the ensuing year three hundred dollars for water for flush tanks.

MAN-HOLES AND LAMP-HOLES.

There have been added to the sewerage system thirty-two man-holes and twenty-five lamp-holes. These man-holes and lamp-holes have perforated covers which furnish the necessary ventilation to the sewers. They balance the pressure of air between that on the inside of the sewer and that of the open atmosphere of the street, thus preventing a partial air seal in the sewers during a sudden influx of water by allowing impounded air to escape. They also furnish a ready means of inspection of the condition of sewers, and if an obstruction should occur, a way of removal of same without injury to the sewers.

We find in outlying parts of the city that children drop sticks, stones and pieces of iron through the ventilating holes of the covers, and we repeat our recommendation of 1886 that an appropriation be made to commence placing these (iron) pans in man-holes and lamp-holes where the most trouble is experienced. We have included in our estimate of expense for maintenance during the ensuing year two hundred dollars for that purpose.

CATCH BASINS.

There have been built during the past year twenty-six catch basins and ten gutter grates, making the total number of catch basins one hundred and eighty-eight, gutter grates, fourteen. The care of cleaning catch basins is in the hands of the Commissioner of Highways. We would again recommend that the care of catch basins be replaced in the hands of the Sewer Commissioners, as experience proves that they can be better cared for by us.

In our estimate of expense for maintenance we estimated one thousand dollars for care of catch basins, as there are two hundred and two basins to be cared for. The estimate would allow less than five dollars per basin. These basins should average being cleaned five times per year, some more, some less. The capacity of each basin when full to the trap is 2 35-100 cubic yards.

* * * * *

In alluding to the Division street sewer, the Commissioners say:

The sewer is doing good work. It has lowered the ground water in its immediate vicinity a number of feet. When we crossed Summit street with the Di-

vision street sewer the water was within twenty-seven inches of the surface of the street. When we made the connection of the Summit street sewer with the Division street sewer, we dug thirteen feet and did not find water. It has drained all of the wells dry in its immediate neighborhood. Wier measurements of the ground water drawn through the Division street sewer have been taken. For several months the amount averaged over one hundred thousand gallons per day.

The liberal policy of constructing sewers when needed has been decidedly to the advantage and growth of our city, and we point with pleasure to the recent erection of a large factory which will furnish employment to four hundred operatives as the fruit of this policy.

The following schedule of all sewers constructed to December 1, 1887, shows the diameters of each sewer, the length of each, diameter, and the total length of sewer in each street; the total length of each sewer of each diameter, the total length of all sewers constructed, and the material of which the sewer is built. This schedule shows that the total length of all sewers constructed is 43,633- $\frac{21}{100}$ feet=8- $\frac{26}{100}$ miles, of which, 30,879- $\frac{7}{100}$ feet=5- $\frac{85}{100}$ miles, is of salt glazed pipe; 11,092- $\frac{3}{100}$ feet=2- $\frac{10}{100}$ miles, is of brick; 1,289- $\frac{11}{100}$ feet, or less than one-fourth of a mile, is of cement pipe, and 373 feet is of iron.

* * * * *

HOUSE CONNECTIONS.

Since December 14, 1886, there have been 103 connections made with the sewers, connecting 103 houses, 5 blocks, 21 stores, 3 stables and 5 manufactories. The total number of connections and number of houses connected to date:

Number of connections.	355
Number of buildings.	399
* * * * *	

MOSHASSUCK RIVER WATER SHED.

That part of our city lying within the water shed of the Blackstone river is all that is provided for in our present plan of sewerage. A large part of the city, and that part that is at present growing the most rapidly, lies within the water shed of the Moshassuck river. In this district is included a small part of the third ward, about one-half of the fourth ward and the greater part of the fifth ward. The storm water from this entire section south of Mineral Spring avenue is turned upon private property to find its way to the Moshassuck river.

* * * * *

To care for the storm water of this entire water shed within the city of Pawtucket, sewers will have to be constructed, and that within a few years. Sewers will soon be needed in this section to care for house and manufacturers wastes. While the storm water can be turned into the Moshassuck river, we do not for a moment consider that sewage can be so disposed. It will not even *do* for a short time.

In the sewerage system of the Moshassuck river section of Pawtucket, provisions will have to be made for the dry weather flow of sewage of that part of the town of Lincoln lying within the Moshassuck river water shed, included in the district of Central Falls and Moshassuck. The Central Falls district would in-

clude the thickly settled and rapidly growing portion of the village of Central Falls that lies west of Broad street.

The principal question to be considered will be the disposal of the sewage of this section. River disposal is entirely out of the question, leaving but two methods to be considered. One to pump the sewage onto Seekonk Plains and care for it with that of the Blackstone river sewers by filtration. The other will be by an arrangement with the city of Providence, whereby they will take the sewage at the city line and care for it with their own sewage at Fields Point.

In designing the plan of the intercepting sewers of the city of Providence, provisions were made to care for the sewage of this part of Pawtucket. Mr. Gray, C. E., in his report, says upon this subject:

* "That part of the Moshassuck river valley lying within the limits of the town of Pawtucket, estimated to be 1417 acres, has no means of outlet except through the city of Providence. Parts of this area are destined to be very thickly settled; in fact, are already being built upon, and the question of the disposal of its sewage has been considered in connection with the areas lying within the city limits in the determination of the sizes of main sewers, sewerage works, etc. The line of main sewer is therefore shown as crossing the city line."

Which of these methods of disposal to recommend will require careful consideration, not only of the present cost, but of future cost of maintenance.

Before sewers can be constructed in this section and before the method of disposal of the sewage can be determined, a topographical survey will have to be made and comprehensive drainage plans prepared.

We have included in our estimate of cost of maintenance for the ensuing year, twenty-four hundred dollars to make these surveys and plans, together with the plans of about three miles of sewers already constructed.

THE DISPOSAL OF SEWAGE.

The question of sewage disposal is the most difficult problem of the many connected with sewerage. It is the great problem of municipalities. It is a problem that we should be prepared to meet. The black, dirty appearance of the banks of the Seekonk river, the mud flats bare at low tide, warn us that it will be but a few years at most before some other method or place of disposal must be found. It will be seen by reference to the report of the committee on sewers of 1884† that they did not consider that the present outfall was a permanent place of disposal, but that the sewage would have to be treated "either by precipitation with chemicals and filtration or by irrigation, preferably by irrigation."

Sewage may be defined as dirty water or filth carried in water. There are three distinct methods of sewage disposal in use that have received the approval of sanitarians and expert engineers. The first, also the oldest method, is to discharge the crude sewage into the ocean or some large body of water where it will be greatly diluted and carried away so as not to give offence. Of this method of disposal, Prof. Nichols and Dr. Derby say: ‡ "In a sanitary view of the ques-

* Appendix, see page 131. Report, July 23d, 1884.

† Page 25.

‡ Report of State Board of Health of Massachusetts, 1873. Page 40.

tion we believe that in the present state of human knowledge and experience, no better receptable than the ocean can be found, provided the sewage is delivered where deep currents can dispense it so that it shall be no more seen and can prevent its deposit in the settling basins of docks and the mud flats of estuaries." This has been the practice in the United States, but the country is becoming so populous that this method must soon be abandoned.

The city of Boston, but a few years ago, at a great expense, built pumps and tanks and pumped its sewage through a tunnel out to an island in Massachusetts Bay. This has answered but a very few years. Already the sewage is causing a nuisance to other towns and some remedy will soon have to be applied.

The city of Providence turned its crude sewage into the Providence river; to those who have had occasion to go down that river the effect is well known. Experiments with floats have been made to determine where the crude sewage of Providence can be emptied into Narragansett Bay without injury to neighboring cities and towns. Mr. Gray, in his report to the City Council of the city of Providence, in 1884, says: * "Another suggestion has been made, which is to take the sewage down the river to Conimicut Point, and there in its crude state discharge it into the bay. * * * The experiments made at this point with floats show that there are strong reasons for fearing that crude sewage emptied into the bay at this point would create a nuisance in the not distant future."

To discharge the crude sewage of Pawtucket into the Seekonk river at some point below Pawtucket would be but to carry the nuisance from our own door to that of our neighbor. While to attempt to discharge crude sewage into Narragansett Bay at some point where there would be no danger of its becoming a nuisance to other cities or towns would require pumping and be so expensive as to become impracticable.

The second method, clarification by the use of precipitants, or chemical precipitation, is the subsidence, aided by the addition of chemicals, of a substance in a solid state from a liquid state. It consists in adding to and thoroughly mixing with the sewage while in motion certain chemicals in solution. The sewage is then brought to a rest in large tanks especially prepared for the purpose, when the solid parts precipitate and settle. These chemicals not only act as precipitants, but they also act as disinfectants. There are a large number of combinations of chemicals used. The two most generally used, as they are the least expensive, are those that employ sulphate of alumina and milk of lime. The quantity is generally estimated to be one ton of milk of lime to one million gallons of sewage. The effluent after the chemical action has taken place and the solids have settled to the bottom of the tanks is allowed to be turned into running streams. The purity of this effluent depends entirely upon the chemicals used and the thoroughness of their use. As to whether it is putrescible, authorities differ. The weight of evidence would seem to be that it is putrescible, and that it would be dangerous to empty the effluent into such streams as the Moshassuck and Ten Mile rivers. The residue after the clarified (not purified) water is drawn off is called "sludge." It is a black semi-fluid having the appearance of mud. This sludge was formerly supposed to be of value as a manure, but at present it

is considered that, * "The product is almost valueless, and it is rarely that farmers are willing to carry it away," that is, even after the greater part of the water has been extracted. The Massachusetts Drainage Commission report: † "To sum up, we are of the opinion upon the whole that precipitation and chemical treatment may be advisable in connection with either of the first, second or third of the devices, but in our present state of knowledge ought not to be preferred to either of them." The first being to throw sewage into great quantities of free water, the second filtration and the third irrigation on land.

The third method is land disposal. Land disposal is divided into two distinct systems, broadcast irrigation and intermittent downward filtration. While both aim at the same object, the purification of sewage, yet in their methods of working they are directly opposite.

The advocates of broadcast irrigation maintain that there is great fertilizing value in sewage, which should be saved, and that it should be applied to the roots of crops in such quantities as will be best for their growth. In practice it is the application of a small quantity of sewage to a large quantity of land. It is admitted by the most noted experts, both of this country and Europe, that there is no method of purification by which sewage is so perfectly purified as by irrigation. The quantity of land requisite for this method is estimated to be one acre to each one hundred inhabitants contributing to the sewage. In practice the quantity is one acre for from one hundred to four hundred persons. Col. George E. Waring, Jr., says: ‡ "It would be extravagant under such regulations as would necessarily be enforced in Massachusetts to adopt the English estimate of one acre to each one hundred of the population. If the Massachusetts towns were to be sewered on a strictly separate system, which no English town is, it would be perfectly safe to provide one acre for each five hundred of the population. Indeed, wherever the soil is open and free this figure might be doubled." The same author commenting upon the sewage disposal at Providence, after explaining and giving the results of filtration in Europe, says: "All of this shows that it would not be imprudent with a porous subsoil suitably drained to depend on an acre of land to dispose of the sewage of at least eight hundred persons, being less than one-fourth of Dr. Frankland's limit. This would reduce the area required by Providence after its population shall have reached 300,000 to three hundred and seventy-five acres."

This method of disposal is used in a number of cities in Europe, and at Pullman, Ill. The published reports from Pullman have been very favorable to this matter. There is no disagreeable odor noticeable, and there is no difficulty experienced in winter, the sewage readily soaking away.

Intermittent downward filtration consists in distributing the sewage alternately upon different areas of land, especially prepared for the purpose without any regard to the crops that might be raised. It is the "maximum quantity of sewage to the minimum quantity of land." By applying sewage to land it is purified both of the solid impurities and of the impurities held in solution.

* Report of Massachusetts Drainage Commission, 1886. Page 18.

† Page 19.

‡ Criticisms on the report of the Massachusetts Drainage Commission.

The purification of sewage by land filtration is not alone mechanical, but chemical in its action. The experiments of scientists support the theory that micro-organisms play a very important part in the purification of sewage, and that sewage should be applied intermittently to allow of a proper aeration, which is necessary to the life of these organisms, and that oxidation is a result. They also teach that the raising of crops is not necessary for the purification of sewage.

Experts who have examined the sewerage systems of this country and of Europe, and who have made sewage disposal a study, are unanimous in the opinion that land disposal is the best method of sewage disposal.

Prof. William Ripley Nichols says: * "The mass of those who are to be considered authorities on the subject have come to this conclusion, that the only way at present available for *purifying* the sewage is that afforded by filtering it through natural soil. The purifying power of natural soil is very great, and if sewage be applied to land properly drained the organic matters are entirely destroyed, that is, converted into innocuous compounds. It is essential that the sewage should be supplied to a given portion of the soil *intermittently*, and that there should thus be given to the filter beds an opportunity for aeration."

Rudolph Hering, C. E., having been commissioned to examine the sewerage systems of Europe, in a report to the National Board of Health (1881), as a result of an examination made of the sewerage works of Europe, in 1880, says: "When sewage must be purified before it is discharged into a stream, the most satisfactory method is by *irrigation*, provided a sufficient amount of territory and soil can be had at the price of good farming country. When sufficient land cannot be had for irrigation, on account of expense, etc., or during the winter months when vegetation cannot absorb the sewage, *filtration* is sufficiently effective to purify it. During the winter it may be constantly applied; during the summer it should be intermittent. Irrigation and filtration are frequently combined for the same town; and this is especially advantageous where the winter climate is severe."

Mr. Hering repeats the above quotations in his report to the Committee on Drainage of the city of Lynn, in 1884.

Eliot C. Clarke, C. E., under direction of the Massachusetts Drainage Commission, visited England and investigated the methods of sewage disposal in practice there. He also visited the Pullman sewage farm. Reports, † conclusion: "The proper disposal of sewage is always a difficult and expensive matter. Sewage may be clarified by chemical precipitation, but will not, by such means, be rendered fit to go into water used for domestic purposes, or into any water course where it will not always be greatly diluted. Such treatment could be recommended only where land purification was impracticable. The only practicable method yet discovered of purifying sewage is by its intermittent application to large areas of land. The purification will be more effectually and more easily accomplished when the land is devoted solely to this purpose."

Joseph P. Davis, C. E., of New York, and Rudolph Hering, C. E., of Chicago, having been employed by the Drainage Commission to examine Mr. Clarke's report, in their report fully coincide with the above views.

In the report of the Commission of the American Society of Civil Engineers

* Massachusetts State Board of Health, 1873.

† Page 135.

upon the sewerage plan for the city of Providence, they say: * "That sewage may be effectually disposed of by intermittent filtration, does not admit of any doubt. Since this method of disposal was first proposed by Dr. Frankland, in 1870, it has been tried in a large number of towns in England, and in a few instances in this country. In all cases, except where the essential requirements of the process have been grossly violated, its success in producing an effluent clear, colorless and free from all noxious or putrescible matters has been complete."

Samuel M. Gray, C. E., in his report of a proposed plan of sewage disposal for the city of Providence, says: † "My reason for recommending precipitation is that I am confident that the sewage can be so clarified that the effluent will be entirely harmless when emptied into the river at Fields Point, and the purification can be accomplished at less expense than by irrigation. Although sewage is more fully purified by irrigation than by precipitation, I have not felt justified in recommending its adoption, for, from careful and extended surveys, I am convinced that the large amount of suitable land required for irrigation cannot be obtained at any reasonable cost, within reasonable distance of the city."

Although Mr. Gray recommends precipitation for the city of Providence, the whole tendency of his report is toward irrigation, if a suitable quantity of land can be obtained at a reasonable price.

It will be seen by reference to the foregoing that sanitary engineers in this country, where some method of purification is necessary, strongly favor intermittent downward filtration in connection with irrigation, and, as far as we are able to determine from reports, the most able engineers and sanitarians of Europe favor the same method of disposal. The adoption of either of the foregoing methods of sewage disposal depends upon location, as regards large bodies of water, climate, soil, the price and availability of land.

Water disposal being out of the question, for lack of a sufficiently large body of water in which to dispose of the sewage at a reasonable expense, clarification by the use of precipitants being too expensive and the effluent being of too doubtful purity to allow of its disposal without filtration into either of our rivers, there remains but land disposal to be considered in connection with the sewage of the city of Pawtucket.

Within the corporate limits of this city, there are two large tracts of arid land, one of about six hundred acres, the other about three hundred acres, peculiarly suited to the requirements of either irrigation or filtration. These tracts are a part of the Seekonk Plains. The soil is light, having much the appearance of dry leaf mould, while the subsoil is clean, coarse gravel underlying a bed of coarse, sharp sand.

The water level as shown by the few wells in that vicinity is about eight feet below the surface. At present the greater part of these tracts is worthless for agriculture. They will not be used, owing to their peculiar formation, for many years (if ever) for residences.

We therefore recommend, as the method of disposal of the sewage of the city of Pawtucket, a combination of irrigation and intermittent downward filtration.

* Page 13.

† Page 9.

As authority from the General Assembly must be obtained before land can be procured for this purpose, we would recommend that the city council obtain such authority as may be necessary, and after such authority is obtained, that the city council procure the land, which can now be purchased at a low cost, thus insuring ourselves of the means of economically dealing with this question when it is finally forced upon us, as it must be within a very few years.

ISAAC SHOVE,	}	<i>Board of Sewer Commissioners.</i>
FRED. W. EASTON,		
W. P. MORONEY,		

A. R. SWEET, *Engineer and Superintendent.*

SCITUATE.

1. Nothing done for the promotion of public health in this town by the town authorities during the year.
2. No water service for general use.
3. No public sewerage.
5. No board of health except the town council.
6. Health Officer, Walter J. Smith, M. D.
7. No gratuitous vaccination provided during the past year.

D. H. REMINGTON, *Town Clerk.*

SMITHFIELD.

1. Nothing for the promotion of public health, except appointment of health officers.
2. No water service for general use.
5. The legal board of health, the town council.
6. Health Officer, Jenckes Smith.
7. No gratuitous vaccination during the past year.
8. Undertakers have quite promptly sent in their returns of death.

OSCAR A. TOBEY, *Town Clerk.*

WOONSOCKET.

1. No unusual work for the promotion of public health contemplated by the town authorities.
2. For extension of water service for general use, see Water Commissioners' and Superintendent's Reports, appended.
3. No system of public sewerage.
4. See new ordinance attached. The council have endeavored to have the sanitary ordinances enforced. The health officer has been having a good salary, and received positive instructions. I think it has been quite well attended to.
5. Board of health, the town council.
6. Health Officer, James P. Mulcahy.

7. No gratuitous vaccination provided during the past year.

8. I have more or less trouble about the returns of deaths, but have had a talk with the undertakers and hope all will be easy this year.

A. E. GREENE, *Town Clerk*.

TOWN OF WOONSOCKET.

CHAPTER 50.

AN ORDINANCE IN RELATION TO CONTAGIOUS OR INFECTIOUS DISEASES.

It is ordered by the Town Council of the town of Woonsocket as follows:

SECTION 1. Every physician having knowledge of the existence of any contagious disease within the town of Woonsocket shall immediately make a report thereof in writing to the Health Officer of said town on blanks furnished for the purpose.

SEC. 2. The diseases referred to in the preceding section shall include among others, small pox, diphtheria, typhoid fever, typhus fever, scarlet fever or scarlatina.

SEC. 3. Whenever there is a case of scarlet fever, diphtheria, or any contagious or infectious disease in any house in the town, the health officer shall cause to be placed upon such house a card bearing the name of the disease therein existing, and any person who shall remove said card except by permission of the health officer shall upon conviction thereof pay a fine of not more than twenty dollars.

SEC. 4. No person shall retain, expose or allow to be retained or exposed the body of any person who has died of small pox, diphtheria, scarlet fever, typhus fever or Asiatic cholera, to the peril or prejudice of the life or health of any person.

SEC. 5. Any person who shall violate any provision of the foregoing ordinance shall upon conviction thereof pay a fine of not more than twenty dollars, and any undertaker who shall violate any provision of the foregoing ordinance, upon conviction thereof, shall in addition to the above penalty be thereupon and thereby removed from the office of undertaker.

SEC. 6. This ordinance shall take effect from and after its passage.

Attest:

ALBERT E. GREENE, *Council Clerk*.

The foregoing ordinance was passed by the town council of the town of Woonsocket November 25, 1887.

Attest:

A. E. GREENE, *Clerk*.

EXTRACT FROM THE REPORT OF THE WATER COMMISSIONERS.

Our financial statements embrace the time between April 30, 1886, and April 30, 1887. * * * They show quite an increase of income over the amount of last year, and is our emphatic testimonial that the water works are regarded by the citizens of the town of Woonsocket as an essential necessity, as well as an agreeable and inexpensive luxury.

The following exhibit will give any tax-payer the receipts and expenditures for the year; also the total increase of cost of the water works and the net cost, including the interest:

MAINTENANCE ACCOUNT.

Management and repairs.....	\$7,345 52	
Interest on net cost of works, \$303,122 39.....	12,124 90	
Total expense.....		\$19,470 42
Revenue from consumers.....	\$11,210 79	
“ “ hydrant service, etc.....	9,002 50	
“ “ drinking fountains.....	965 54	
“ “ street watering.....	189 33	
“ “ public buildings.....	106 11	
Total revenue.....		\$21,474 27
Amount of surplus on account of maintenance for year ending April 30, 1887.....		2,003 85
Net cost of water works April 30, 1886.....		303,122 39
Total net expense on account of construction for year ending April 30, 1887.....		18,753 18
		<hr/> \$321,875 57
Less surplus for maintenance.....		2,003 85
Net cost of water works April 30, 1887.....		<hr/> \$319,871 72
* * * * *		

We would suggest for consideration the benefit to be derived from an additional supply pipe, leading from the tank to some other point of connection with the distributing pipes of the town, than at Market square. This would give a sure supply of water in case of breakage of present supply pipe, particularly if such break should occur in the night or during a fire. At some future time there should be provided an additional tank for storage capacity.

For details and statistics of other information not embraced in our report, we would refer to the Superintendent's report in the following pages.

JOHN W. ELLIS
PATRICK J. CONLEY, } *Commissioners.*
EDWIN B. MILLER, }

FROM THE REPORT OF THE SUPERINTENDENT OF WATER WORKS.

There are now in use $18\frac{9.6.3}{1000}$ miles of mains, 284 fire hydrants, 536 meters, and 595 taps, supplying 1551 families and 252 other consumers, with an average daily consumption of 243,565 gallons and a rental, including hydrants and water used for town purposes, of \$21,203.74 per annum, an increase for the year of

0.697 miles of main.

14 fire hydrants.

172 meters.

160 taps.

353 families.

31 other consumers.

51,565 gallons daily consumption.

Ninety-five and forty-nine one hundredths per cent. of the families and ninety-

eight and eighty-one one hundredths per cent. of the other consumers are supplied with metered water.

* * * * * * *

QUALITY OF WATER.

The quality of water for the past year has been generally good and there have been but few complaints of bad water, and these have been satisfied by local flushing. Certain changes in the inlet pipe are desirable, that the water may be drawn from different heights in the reservoir and some control over the quality of water pumped exercised thereby.

LOW WATER ALARM.

A low water alarm so arranged as to sound bells, within hearing of the superintendent and engineer, whenever the surface of water in pressure tank reached a certain minimum height, would add greatly to the security and efficiency of the works, as an accident to the pipes causing an unusual draft of water would thereby be more quickly detected.

* * * * * * *

PUMPING STATION AND CONTENTS

are all in good condition and the machinery is working smoothly and satisfactorily. The pumps have been protected by lagging and other minor improvements made. It would be in the interests of economy to put in a heater for feed water at once, which, with a few articles of furniture, would make it a well equipped station.

MAINS, HYDRANTS AND SERVICES.

The mains crossing Mill river have been re-laid below the bed of the stream, where they will be more secure from damage by freshet or frost. I believe this to be the best manner of disposing of the pipe wherever practicable. Hydrants and services have given but little trouble during the past winter, although the shorter hydrants require constant watching in severe weather. The service boxes adopted last season give general satisfaction. Our present system of putting in new services is expensive and unsatisfactory in its working.

EXTENSION OF MAINS.

We have laid during the past season $1342\frac{91}{100}$ linear feet of four-inch cast iron pipe, and 2338 linear feet of six-inch cast iron pipe, and set 14 new fire hydrants. The pipe has all been laid at a uniform depth of six feet from the surface of ground to centre of pipe except at bridges, where it has been laid two feet below the bed of the stream. The hydrants set are six-foot hydrants.

We were delayed in the execution of the work of extension by being unable to purchase the necessary material until after the June meeting of the tax-payers. A change in this respect would be greatly for the interests of the Department.

FOUNTAINS.

Many petitions are received that new fountains of the Jencks pattern may be put in at the junction of Carrington and Hamlet avenues, and at the junction of High and River streets.

WATER POWER.

The water power at reservoir No. 2 and that of the waste water at reservoir No. 1 could be utilized for pumping during the greater portion of the year, and a material reduction in the expense of operating the works made thereby.

PRESSURE TANK.

It seems advisable to make some provision for an additional pressure tank in the near future. The present one, although answering all requirements to the present time, in case of an emergency might prove inadequate, and the constantly increasing consumption makes this more apparent now than heretofore. A similar tank located on the opposite side of the town would afford a supply in case of accident to the present force or supply main, hold an additional supply for fire purposes, and also effect a saving in coal by admitting of more regularity in the hours of pumping.

I have to acknowledge the faithful services of my assistants during the year, who are each and all performing their duties in a satisfactory manner; also the courtesies shown and the assistance rendered by you, in the discharge of my duties.

WILLARD KENT, *Superintendent.*

STATISTICS.

Total pumpage for the year in gallons.....	89,423,053
Number of gallons pumped per pound of coal.....	180.92
Cost of pumping figured on pumping station expenses.....	\$2,567.74
Per million gallons raised against dynamic head into tank.....	28.715
Per million gallons raised one foot high (dynamic).....	0.118
Cost of pumping figured on total maintenance.....	19,470.42
Per million gallons raised against dynamic head into tank.....	217.73
Per million gallons raised one foot high (dynamic).....	0.90

CONSUMPTION.

Estimated total population to date.....	19,500
Estimated population on lines of pipe to date.....	16,200
Estimated population supplied to date.....	7,755
Total number of gallons consumed for year.....	88,924,946.07
Passed through domestic meters, 22,050,330 gallons, or $63\frac{6}{100}$ per cent. of metered water.	
Passed through manufacturing meters, 12,588,195 gallons, or $36\frac{34}{100}$ per cent. of metered water.	
Total number of gallons metered.....	34,638,525
Average daily consumption (gallons).....	243,565
Gallons per day to each inhabitant (1).....	$12\frac{49}{100}$
Gallons per day to each consumer (3).....	$31\frac{41}{100}$
Gallons per day per tap (distribution 22).....	409

METEOROLOGICAL TABLE.

Observations made by Woonsocket Water Works Department.

1886-7.	Total precipitation for month.	Estimated depth of snow.	Mean Maximum Temperature.	Mean Minimum Temperature.	Mean range of Temperature.	Mean Temperature (Maximum and Minimum).	Temperature tri-daily.	Date of highest Temperature.	Register of highest.	Date of lowest.	Register of lowest.
	1	2	3	4	5	10	11	7	6	0	8
April.....	2 84	0.2	56.0	41.1	14.9	48.6		16	66	4	24
May.....	3.56		65.9	49.4	16.4	57.6	56.8	24	85	1	32
June....	1.58		75.2	56.8	18.3	66.	64.4	11	86	5	48
July.....	2 78		83.4	62.5	21.0	73.	71.2	8	96	12	50
August	5 26		78.8	59.0	19.8	68.9	67.7	29	90	21	41
September....	2.09		71.9	55.6	16.2	63.8	62.2	10	84	22	37
October... ..	3.37		60.4	42.8	17.6	51.6	49.9	13	77	17	21
November.....	3.94		48.8	34.3	14.5	41.6	40.	19	64	28	16
December....	3.30	13.5	32.9	21.2	11.7	27.1	25.2	25	52	10	5
January.....	6.52	12.	31.3	18.6	12.6	25.	22.1	25	54	19	-10
February.....	5.11	7.5	28.4	23.8	4.6	26.1	27.9	20	46	14	3
March.....	5.26	7.2					29.9				

Total precipitation for year, 45 61.

PROVIDENCE CITY.

1. The Board of Aldermen, acting as a board of health, and by recommendation of the Superintendent of Health, have ordered the abatement of a very large number of nuisances, and otherwise provided for the sanitary needs of the city.

2. See extracts from the Report of the City Engineer and Board of Public Works, appended.

3. Same as question 2.

4. New ordinances appended.

5. The Board of Aldermen, the only board of health proper.

6. C. V. Chapin, M. D., Superintendent of Health; G. T. Swarts, M. D., Medical Inspector; J. S. Rogers, Sanitary Inspector.

7. Gratuitous vaccination free to all city residents, every Saturday, at the City Hall, from 3 to 4 o'clock P. M.

8. Undertakers are, by enforcement of law, prompt in making returns of deaths before the burial or removal of the deceased body.

CITY OF PROVIDENCE.

CHAPTER XVIII.

AMENDMENT OF CHAPTER X. OF THE RULES AND REGULATIONS OF THE BOARD OF ALDERMEN, ENTITLED "SANITARY CODE."

[Adopted September 15, 1887.]

68. The funeral of any person who has died of small-pox, diphtheria, scarlet fever, typhus fever or Asiatic cholera, shall be private; and no person having the care or custody of the body of any person who has died of the above diseases shall do, or knowingly or wilfully permit to be done, any unnecessary act by which spread of disease from such dead body may be caused or promoted.

69. Any person who shall violate any provision of the next preceding rule shall, upon conviction thereof, pay a fine of not more than twenty dollars or be imprisoned not exceeding ten days; and any undertaker who shall violate any provision of said rule, upon conviction thereof shall, in addition to the above penalty, be thereupon and thereby removed from the office of undertaker.

70. Whenever there is a case of scarlet fever or diphtheria in any house, the superintendent of health shall cause to be placed upon such house a card bearing the name of the disease there existing; and such card shall not be removed except by permission of the superintendent of health.

EXTRACTS FROM THE REPORT OF THE CITY ENGINEER.

WATER WORKS.

* * * * *

Twenty hydrants have been set during the year, 16 of six-inch pipe, and 4 of eight-inch. * * * The total number of hydrants to December 31, 1887, is twelve hundred and sixty-eight, including thirty-six in the town of Johnston. This number does not include eleven post hydrants which are set in the town of Cranston.

Following is a statement of the length of each size of water pipe in the ground January 1, 1888, considered as mains:

SIZE OF PIPE.	Length in feet.	Length in miles.
36 inch.....	10,084.	1.9098
30 ".....	59,637.	11.2949
24 ".....	37,685.98	7.1375
20 ".....	6,854.80	1.2983
16 ".....	31,574.	5.9799
12 ".....	57,699.49	10.9279
10 ".....	14,758.10	2.7951
8 ".....	150,132.97	28.4343
6 ".....	705,469.95	133.6117
*4 ".....	3,719.30	.7044
Totals.....	1,077,615.59	204.0938

* At Pipe Yard, Roger Williams Park, and North Burial Ground.

Included in the above table are the following approximate lengths of pipe which are laid in adjoining towns:

CRANSTON.		JOHNSTON.		NORTH PROVIDENCE.	
Size of Pipe.	Length in Miles.	Size of Pipe.	Length in Miles.	Size of Pipe.	Length in Miles.
36 inch.	1.91	30 inch.	.01	24 inch.	.45
30 "	4.51	12 "	.05		
24 "	.13	8 "	1.90		
12 "	1.51	6 "	5.09		
8 "	2.11				
6 "	4 26				

The annual and the average daily and monthly consumption of water, including waste and leakage, during the year 1887, is shown by the following table:

Total consumption for the year.....	1,803,093,391
Average monthly consumption.....	150,257,783
Average daily consumption for the year.....	4,939,982

The amount of water consumed, shown in the above table, includes the supplying of about 15.3 miles of distribution pipes located in adjoining towns, as well as supplying the greater part of the State Institutions at Cranston.

Lines have been marked in streets for laying water pipe equivalent to a distance of nine and ninety-one one hundredths miles, and grades marked equivalent to a distance of six and fifty-eight one hundredths miles. The office data relating to the grades has been furnished by the highway department when required, and that relating to the layout of streets has been furnished by the street line department. * * * Two hundred and fifty-three construction plans for laying water pipe have been made. Six hundred and thirty service pipes have been sized. * * * The preliminary surveys and plans of the new high service pipe line, between Hope reservoir and Fruit Hill reservoir, have been completed, as well as most of the plans of the new high service reservoir at Fruit Hill. The work of construction on the pipe line was commenced about the middle of August, and on the reservoir the first of September. The work was continued until cold weather, when it was entirely stopped on the pipe line, and on the reservoir with the exception of clearing the ground and preparing broken stone, which will probably be carried on all winter. In the spring both the work on the pipe line and on the reservoir will be vigorously pushed towards completion.

SEWERS.

The following table shows the sizes and length of sewers constructed during the year:

	PIPE SEWER.		CIRCULAR BRICK SEWER.						Totals.
	12 inch.	15 inch.	16 inch.	18 inch.	20 inch.	24 inch.	22 x 33 inch.	26 x 39 inch.	
Total length in feet.....	9,529.79	874.53	277.20	1,367.83	359.45	1,442.27	298.60	647.15	14,796.82
Total length in miles.....	1.80488	0.16563	0.05250	0.25906	0.06808	0.27316	0.05655	.12256	2.80242

The total number of man-holes connected with the sewer system to January 1, 1888, is 2932. The total number of catch-basins built during the year 1887 is fifty; one catch-basin has been discontinued, leaving the number in use January 1, 1888, 4617. Three hundred and forty-nine private drains have been laid and

connected with the public sewers, making the number so connected January 1, 1888, 4,917.

* * * * *

Considerable time and study have been given to the question of an intercepting sewer system. In compliance with the joint resolution No. 420, approved September 10, 1887, quite an amount of preliminary work has been done. One hundred and seventy-eight test wells, or borings, for the purpose of determining the character of the soil in which the work is to be done, have been made at the location of the precipitation tanks, the engine house, and over the lines of main intercepting sewers and the outfall. In general, the ground has proved to be favorable for construction, although in several localities quicksand has been found. Work upon the plans in connection with this work is in progress.

* * * * *

Total length of sewer pipe constructed to January 1, 1888:

	During 1887.	Previous to 1887.	Total.
Length in feet.	14,796.82	291,679.2	306,476
Length in miles.....	2.8024	55.2423	58.045

FROM THE REPORT OF THE BOARD OF PUBLIC WORKS.

WATER WORKS.

* * * * *

Decided progress has been made during 1887 in the improvement of the high service system. * * * All the engines at Pettaconsett station on the Pawtuxet river have been run more or less during the past year, and are in good order to render good service at any time. The Corliss engine, now running, has been thoroughly overhauled lately by its constructor, and is said to equal its performance when new.

* * * * *

The average daily consumption of water during the last quarter was 4,773,000 gallons. During the year, 4,924,915 gallons. The largest amount consumed in any one day during the year was 8,908,000 gallons. During the quarter ending December 31, 1887, one hundred and sixty-nine water meters were set, of which number ten were to replace other meters. Seven thousand six hundred and twenty-three meters were in use at the close of the quarter. * * * One hundred and sixty-eight applications for water were made during the quarter, making the total number, December 31, 1887, fourteen thousand five hundred and seventy-five. The total number of service stops opened to December 31, 1887, inclusive, was thirteen thousand nine hundred and twenty-four. The number in actual use December 31, 1887, was thirteen thousand one hundred and twenty-eight.

* * * * *

The receipts for water each year since the commencement have been as follows:

YEAR.	AMOUNT.	YEAR.	AMOUNT.
1872.....	\$41,003 51	1880.....	\$247,705 06
1873 .. .	97,386 09	1881.....	260,530 87
1874... ..	132,052 39	1882 .. .	269,318 77
1875.....	165,144 71	1883.....	283,632 89
1876	183,868 73	1884.....	302,368 36
1877.....	200,039 39	1885.....	313,561 21
1878.....	218,883 33	1886.....	323,084 67
1879.....	229,551 78	1887	339,513 60

WASHINGTON COUNTY.

CHARLESTOWN.

1. No work for the promotion of public health contemplated by the authorities during the year.
2. No public water service.
3. No public sewerage.
4. The following ordinance was passed by the town council January 2, 1888.*
5. No legal board of health beside the town council.
6. A. A. Saunders, M. D., Health Officer.
7. Gratuitous vaccination has been provided by the town council, which was performed by H. K. Gardiner, M. D., at the district school-houses. Thirty out of one thousand vaccinated. It has been performed yearly in this town, which accounts for the small percentage.
8. Less than one-half of the deaths are returned by the undertakers. They are obtained when school census is taken.

GEO. C. CROSS, *Town Clerk.*

* AN ORDINANCE IN RELATION TO CONTAGIOUS OR INFECTIOUS DISEASES.

[Passed January 2, 1888.]

It is ordained by the Town Council of the town of Charlestown as follows:

SECTION 1. Whenever there shall occur within this town, in any particular locality, any very large prevalence of any contagious or infectious disease or any disease very dangerous to life, it shall be the duty of the health officer of this town, upon knowledge or upon notification of such occurrence, to visit at once

the locality of such large prevalence of dangerous disease and endeavor to ascertain the cause or causes of such disease, and give such orders and establish such rules and regulations as are deemed needful to restrict and prevent the spread of such disease.

SEC. 2. Said health officer shall examine the water used for drinking purposes, if any considerable number of persons are supplied from one source; shall inspect the premises where the disease is particularly virulent, search for decomposing accumulations of filth, obscure defective drainage and other sources of disease, require isolation of the sick, when practicable, from all but necessary attendants, forbid the intercourse of children in the houses of the sick with those that have not been exposed, and in general to perform the duties suggested in the Manual to Health Officers, issued by the State Board of Health.

SEC. 3. The compensation of the health officer shall be three dollars for every day in which he shall be actually engaged in the duties of the office.

A true copy.

Attest:

G. C. Cross, *Town Clerk.*

EXETER.

1. No work for the promotion of public health contemplated by the town authorities during the year.

2. Water for drinking purposes is taken almost exclusively from wells.

4. No new ordinances in relation to health.

6. The Health Officers, the town council: Clarke S. Greene, Exeter; Geo. F. Barber, Wyoming; John F. G. Sweet, Slocumville; Stephen C. Dawley, Exeter; William G. Rose, Slocumville.

7. No gratuitous vaccination provided during the past year.

8. In most cases where an undertaker has conducted the funeral. Fully one-half of funerals are conducted by some person not an undertaker, and in such cases returns are rarely made.

HOPKINTON.

1. Nothing new for the promotion of public health has been contemplated by the town authorities during the year.

2. No public water service for general use.

4. No new ordinances in abatement of nuisances, or other health matters.

5. No board of health beside the town council.

6. Health Officer, John D. Kenyon, M. D.

7. Gratuitous vaccination was provided the latter part of the year 1885. Three hundred and eighty-six persons were vaccinated.

NORTH KINGSTOWN.

1. Nothing particular except the appointment of health officer.

2. No introduction of water service.

4. Sanitary ordinances not very properly or promptly enforced. See ordinances appended.
5. No board of health beside the town council.
6. Health Officer, S. Oscar Myers, M. D.
7. No gratuitous vaccination provided during the past year.

C. T. CROMBE, *Town Clerk.*

FROM ORDINANCES OF THE TOWN OF NORTH KINGSTOWN.

CHAPTER VIII.

AN ORDINANCE IN RELATION TO PUTTING FILTH OR RUBBISH ON THE STREETS AND HIGHWAYS.

SECTION 1. Every person who shall throw or cause to run into or upon any public street or highway, sidewalk, cross-walk, or foot-walk, in any of the compact parts of this town, any filthy water, slops, or swill, shall pay a fine of not less than two dollars nor more than ten dollars for every such offense.

SEC. 2. Every person who shall put, place, throw, or deposit in any public street or highway in this town, except under the direction of the Surveyors of Highways, any ashes, soot, cinders, shavings, manure, old tin, iron, timber, wood, any oyster, clam, lobster, or other shells, any bones, fish, animal, or vegetable matter, any dirt, dust, stones, or other matter or thing, shall pay a fine of not less than two dollars nor more than twenty dollars for every such offense.

CHAPTER XI.

AN ORDINANCE IN RELATION TO SLAUGHTERING CATTLE AND OTHER ANIMALS.

SECTION 1. The Town Council of this town do hereby designate and appoint all that part of the town of North Kingstown lying without and beyond the limits of the Wickford Fire Corporation and without the compact parts of the other villages of this town, as the place where the business of slaughtering cattle and other animals may be carried on.

CHAPTER XIII.

AN ORDINANCE IN RELATION TO NUISANCES.

SEC. 1. Every person who shall put, place, throw, or deposit any dog, cat, sheep, or other animal, into the waters surrounding or near any of the compact parts of this town, where it shall become or be liable to become an annoyance or nuisance to any of the inhabitants of said town, shall pay a fine of not less than two dollars nor more than twenty dollars for every such offense.

SEC. 2. Every person who shall put, place, or deposit in any part of this town, any animal or vegetable matter which shall be or become a nuisance to any of the inhabitants of said town, shall pay a fine of not less than two dollars nor more than twenty dollars for every such offense.

CHAPTER XIV.

AN ORDINANCE IN RELATION TO THE HEALTH OFFICER.

SECTION 1. It shall be the duty of the Health Officer of this town to make complaint for any violations of the provisions of the preceding chapter.

SEC. 2. Whenever it shall be made to appear to said Health Officer that any person has put, placed, or deposited in any open lot, common, lane or highway of this town, or upon any of the shores therein, any animal or vegetable matter likely to injure the health of the inhabitants of said town or any portion of them, or by noxious air to annoy the neighborhood, said Health Officer shall forthwith give notice in writing to said person to remove said matter at once and abate said nuisance.

SEC. 3. If said matter be not removed and said nuisance abated within twenty-four hours after the receipt of said notice, said Health Officer shall issue his warrant to the Town Sergeant, Police Constable or Constable of said town, to remove and abate the same; and the expense of said removal and abatement shall be paid by the Town Treasurer of said town, and afterwards recovered from the person putting, placing, or depositing said matter as aforesaid, in an action of debt, brought in the name of said Town Treasurer, before any court of competent jurisdiction.

It was declared by vote of the Town Council that the above ordinances, with various others, should go into effect on the first day of March, 1887.

C. T. C.

SOUTH KINGSTOWN.

1. The board of health passed a vote prohibiting the depositing of swill, &c., in the ponds and waters in and around Narragansett Pier in the boarding season.
2. No public introduction or extension of water service for general use.
3. No public sewerage. A large number of private sewers at Narragansett Pier, discharging into the ocean.
4. See ordinances appended.
5. No board of health beside the town council.
6. Health Officer, John R. Wilcox.
7. Gratuitous vaccination has been provided during the past year for the school children.
8. Undertakers have promptly sent in their returns of death.

H. B. PERRY, *Town Clerk.*

FROM ORDINANCES OF THE TOWN OF SOUTH KINGSTOWN.

AN ORDINANCE TO REGULATE THE KEEPING OF SWINE.

It is ordained by the Town Council of South Kingstown as follows:

SECTION 1. Swine may hereafter, at any time, be kept at any proper place within the town of South Kingstown, except that comprising the village of Narragansett Pier, and within the territory described as follows:

Commencing at the seashore, at a point due east from and in line with Joseph P. Hazard's tower, thence running west to said tower, then due west to a point due south from and in line with the Elisha Watson ice-house, so called, then running north to said ice-house, thence north to the north side of the Sprague-Mumford farm, thence due east to the seashore, thence following the shore to place of beginning, and within said described and excepted territory no swine shall be kept, between the first day of June and the first day of the following October in any year, and any person violating this ordinance shall pay a penalty of ten dollars, to be recovered by the Town Treasurer in an action of debt.

AN ORDINANCE IN RELATION TO NUISANCES.

It is ordained by the Town Council of South Kingstown as follows :

SECTION 1. It shall be the duty of the Police Constables, Town Sergeant and Constables of this town to examine into the state and condition of every place and part of this town where he shall suspect or be informed that there exists any matter or thing which is or may be prejudicial to the health of the inhabitants thereof.

SEC. 2. Whenever it shall appear to the satisfaction of the Town Council of this town that there exists upon any premises owned or occupied by any person or corporation, any dirt, offal, or animal or vegetable matter, or the contents of any barn, hog-pen, privy, drain or vault, calculated to injure the health of the inhabitants of this town, or by noxious air to annoy the neighborhood, and that such nuisance or annoyance may be abated at an expense not exceeding ten dollars, the owners or occupants of such premises shall be forthwith notified in writing of the existence of such nuisance or annoyance by the Town Council, and directed forthwith to abate the same, and if such nuisance or annoyance shall not be abated within twenty-four hours after such notice, the Town Council shall authorize in writing the Sheriff of the County of Washington, his deputies, or the Town Sergeant or either of the Constables or Police Constables of said town, to cause such nuisance or annoyance to be abated, and the Town Council shall order the expenses thereof, not exceeding ten dollars, to be paid out of the town treasury to the said officer abating the same, and the owner or occupant of such premises shall pay a penalty of ten dollars, for which, together with the penalty aforesaid, the said owner or occupant shall be liable, and the same shall be recovered for the use of said town, in an action of debt in the name of the Town Treasurer, before any court of competent jurisdiction.

SEC. 3. Whenever it shall appear to the satisfaction of the Town Council of said town that there exists upon the premises owned or occupied by any person or corporation, any matter or thing injurious to the health of the inhabitants of any part of said town, or which may originate or conduce to the spreading of any infectious or contagious disease, and that the expense of abating such nuisance or danger to health will exceed the sum of ten dollars, the owner or occupant of such premises upon which such nuisance exists, or the person who may have caused, continued or permitted the said nuisance, shall be forthwith notified to appear before the Town Council at such time as the Council shall appoint, to show cause why said nuisance shall not be abated or removed; and said Council,

upon satisfactory evidence to them submitted, that said nuisance or danger to health exists, may order the Sheriff of said county, his deputies, the Town Sergeant or either of the Constables or Police Constables of said town, to forthwith abate the same, and the expenses thereof shall be paid out of the town treasury, and be recovered from the party causing or continuing the same, together with a penalty of twenty dollars, in the manner prescribed in the next preceding section.

AN ORDINANCE IN RELATION TO SWILL, DRAINAGE AND SANITARY MATTERS AT
NARRAGANSETT PIER, ORDAINED BY THE TOWN COUNCIL OF SOUTH KINGSTOWN, APRIL 26, 1887.

It is ordained by the Town Council of South Kingstown as follows:

SECTION 1. Every person who shall at any time whatsoever empty into any public street or highway at Narragansett Pier in said town, any part of the contents of any sink, cesspool or privy, shall be fined not less than five dollars nor more than fifteen dollars.

SEC. 2. No person or persons shall, between the first day of May and the first day of November in any year, carry into or through any such public street or highway, any swill or any part of the contents of any sink, cesspool or privy, in any cart, wagon, or other vehicle whatever, except between the hours of ten o'clock in the evening and sunrise.

SEC. 3. No person or persons shall at any time whatsoever carry into or through any such public street or highway, any swill, or any part of the contents of any sink, cesspool or privy, in any cart, wagon or other vehicle which shall not be effectually covered and water tight.

SEC. 4. No cart, wagon or other vehicle whatever, having therein any swill or any part of the contents of any sink, cesspool or privy, shall be permitted to stand (except while loading) in any such street or highway.

SEC. 5. In case of violation of any of the provisions of the last three sections of this ordinance, the owner or owners, driver or drivers of any such cart, wagon or vehicle, shall be fined not less than five dollars nor more than twenty dollars.

AN ORDINANCE IN RELATION TO THE REGISTRATION OF BIRTHS AND DEATHS,
AND THE INTERMENT OF THE DEAD.

It is ordained by the Town Council of the town of South Kingstown, this 2d day of May, 1887, as follows:

SECTION 1. There shall be appointed by the Town Council a sufficient number of persons to act as undertakers, removable at the pleasure of the Town Council.

SEC. 2. Whenever any person shall die in this town, it shall be the duty of the physician attending in his or her last sickness, upon application, to furnish to the undertaker attending the funeral a certificate, giving the name of the person, date of death, and the disease or the cause of his or her death.

SEC. 3. Every physician omitting or refusing to furnish such certificate, as aforesaid, shall forfeit and pay the sum of five dollars for each offense.

SEC. 4. No person shall bury, or place in a tomb, or remove from the town, or otherwise dispose of the body of any human being who shall die in this town,

without first reporting the death to the Town Clerk and obtaining a permit from him.

SEC. 5. No permit shall be given, as provided in section four, until the Town Clerk is furnished with the information in relation to the deceased person, required by the laws of the State for record, so far as the same can be ascertained, together with the physician's certificate of the cause of death, whenever a physician has been in attendance, or a coroner's certificate, whenever a coroner's inquest has been held. Whenever a permit for burial is applied for, in a case of death without the attendance of a physician, or if it is impossible to obtain the physician's certificate, it shall be the duty of the Town Clerk to investigate the case so far as may be necessary; and when he has obtained satisfactory evidence in relation to the cause and circumstances of the death, he shall give a permit. If not satisfied in relation to the cause and circumstances of the death, or if, in his opinion, the public good requires it, he shall report the case to a coroner for investigation.

SEC. 6. Whenever the body of a human being who has died out of the town shall be brought here for burial, the undertaker, or other person attending the funeral, shall furnish the report required in sections four and five, with the exception of the physician's certificate.

SEC. 7. Every person violating any of the provisions of this ordinance shall pay a fine of not less than five dollars nor more than twenty dollars.

RICHMOND.

1. Do not know of any work for the promotion of public health contemplated by the town authorities or by private enterprise during the year.
2. No introduction of water service for general use.
3. No public sewerage.
5. The board of health, the town council.
6. Health Officer, A. H. Eccleston, M. D.
7. No gratuitous vaccination provided.
8. We have no regular undertakers in this town.

H. P. CLARKE, *Town Clerk.*

WESTERLY.

1. Nothing new for the promotion of public health contemplated by the town authorities.
2. A considerable extension of water service by the Westerly Water Works.
3. No public sewerage.
5. The board of health, the town council.
6. Dr. H. W. Rose, Supt. of Health; Benj. York, Health Officer.
7. Only a very few have been vaccinated gratuitously.
8. Undertakers have promptly sent in their returns of death.

WM. HOXSEY, *Town Clerk.*

REPORTS OF HEALTH OFFICERS.

In order to ascertain what degree of interest was taken in the work of sanitary inspection, and what had been accomplished in the different towns by the Health Officers of the same during 1887, the following circulars were sent at the close of the year :

CIRCULAR No. 73.

OFFICE OF SECRETARY OF THE STATE BOARD OF HEALTH.

PROVIDENCE, Dec. 26, 1887.

To the Health Officer of

DEAR SIR :—An important feature of the Annual Reports of the R. I. State Board of Health is that of giving a connected history of the occurrence of contagious and epidemic diseases from year to year, as they may have prevailed in the different towns, whether epidemically or in a less degree, together with the location of occurrence in the town (village or otherwise), and season of the year.

If the proportion of the fatal cases to the whole number of cases of the same disease could be given, the value of such reports would be very much enhanced. Such proportion can be ascertained only in such towns as *by town ordinance* require physicians to report all cases of such diseases as come within their charge.

An approximate proportion can, however, be given, after the subsidence of the disease, by inquiry of persons living in the immediate neighborhood of the prevalence of such disease as to the number of the sick, or by house to house visitation where the sickness occurred, with same inquiry, and by the comparison of the deaths with the recoveries as so ascertained.

Another feature of the Reports is a yearly record of the sanitary improvements made in the towns, in relation to water supply, drainage, abatement of nuisances, better methods of heating and ventilating public buildings, and such new ordinances as may have been adopted, having in view the improvement of the public health.

It is for the purpose of ascertaining such information that the questions in the inclosed circular are sent to the various Health Officers of the State.

If, therefore, you will have the kindness to reply to the questions in the said circular, according to the best knowledge you have been able to obtain, and forward in the enclosed stamped envelope, you will favor one of the most important interests of the State, and greatly oblige,

Yours truly,

CHAS. H. FISHER,

Sec. State Board of Health.

P. S. In the replies on the blank circular of questions, in relation to the extent or degree of prevalence of any disease, the following signs may be used:

The star (*) preceding the name of any disease will indicate an epidemic prevalence; the sign plus (+), a large prevalence; and the sign equals (=), a moderate prevalence.

To Health Officers who are not physicians, it may be said that the term epidemic, within the meaning of the questions proposed, is the prevalence of some disease to the extent of one or more persons affected with the disease to every five to six persons living in adjacent tenements or in the near neighborhood, or a smaller proportion, not less than one case of the disease in every ten or twelve of the population, extending over a larger area of territory. One sick in every twelve to sixteen persons might be called a **large prevalence**, and one sick in every twenty to twenty-five, a **moderate prevalence**. The number of cases of any one disease may have to be estimated, but make them as nearly correct as possible.

C. H. F.

CIRCULAR No. 74.

DEAR SIR:—Replies to the following questions, as suggested in the accompanying circular, are respectfully solicited; said replies to be made on this circular, following each question:

Name of Town.

Name of Health Officer.

Have there been, within your knowledge, any epidemics, or any large prevalence of contagious or infectious diseases in your town during 1887? If so, of what disease or diseases? in what locality or localities? how many of each disease? * and in what months of the year?

DISEASES.	LOCALITY.	No. of Cases.	No. of Deaths.	Months in which they occurred.

Was isolation maintained or attempted ?

What proportion of the sick, if any, were isolated ? *

Was any inspection of premises made, where sickness prevailed, as to the sanitary condition of the cellars, pantries, sinks, sink-drains, water-closets, if any, cesspools, out-house privies, distance of wells from accumulations of filth, etc., etc. ? If so, please give a general statement as to whether they were sanitarily in conditions, good or bad, or if any thing or place was unusually unsanitary, give a full description. Or if the cause of any outbreak of disease was found, please state what.

Did you make any sanitary inspections during 1887, by order of the town council or from your own option ? If so, what were they and how made ?

Do you know of any location in your town that seems to be particularly unhealthy to any considerable number of persons ? If so, and the cause is suspected, can such cause be removed at any reasonable expense ?

Do you report to your town council nuisances dangerous to the public health, or unsanitary premises within your knowledge ; or of buildings unsafe for occupants in case of fire ? (See Chapter 495, Section 6, Public Laws.)

Have you knowledge that any serious disease of domestic animals has largely prevailed in your town during the year ? If so, what disease or diseases, and in what locality ?

Have you a copy of the " Manual for the Health Officers of Rhode Island " at hand ? If not, one will be forwarded immediately, or more, if desired.

* According to the best knowledge obtainable.

REPLIES OF HEALTH OFFICERS.

BRISTOL.

Health Officer, Lyman B. Bosworth.

The following contagious and infectious diseases prevailed during 1887 :

Scarlet fever, Usher street, 27 cases, 15 deaths, September, October and December. Diphtheria, Wood street, January and February. Measles, Thames street, Ferry Road, none since the month of February known to me. Typhoid fever, High street.

Isolation was maintained.

The proportion of the sick isolated was nearly all.

In regard to inspection of premises, etc., I found that the water in wells at the eastern part of the town, by analysis, was impure. I also found a place where a man kept a piggery and had about a dozen hogs. He collected swill and left it in tubs and barrels, and it fermented, and four children died in the month of September in two families, within 200 feet of said hog-pen.

I made inspection of the above described premises by order of the Town Council, and reported the same in writing at their next meeting, and they ordered the premises to be disinfected. The hog-pen was broken up, hogs disposed of, and have had no more trouble in that locality.

No locality particularly unhealthy, to my knowledge.

I make report to the town council of nuisances dangerous to the public health, when known to me.

No serious disease of domestic animals has largely prevailed during the year.

COVENTRY.

Health Officer, David W. R. Bennett.

Have no knowledge of any contagious disease very prevalent, except scarlet fever at Washington village; 12 cases and 2 deaths in December.

Isolation was maintained in all the cases.

No particular inspection of the premises made where sickness prevailed as to their sanitary condition.

No sanitary inspections during 1887 were made by order of the town council.

I do not know of any location in this town that seems to be particularly unhealthy.

I have reported so far as nuisances have come to my knowledge.

No serious disease of domestic animals has largely prevailed in this town during the year.

EAST GREENWICH.

Health Officer, J. H. Eldredge, M. D.

No decided epidemic in the year 1887.

Isolation was maintained in a few cases of scarlet fever, of malignant type.

All cases kept out of school during convalescence.

No very thorough investigations were made of premises.

Of sanitary inspections made during 1887, there was only one, and that by request of one of the tenants in a double house. Nothing amiss.

I do not know of any location in this town that seems to be particularly unhealthy to any considerable number of persons.

Have had no occasion to report to the town council.

No serious or malignant form of disease among animals, to my knowledge. Cough and lung troubles general among horses in late fall and early winter, but no fatal cases.

JAMESTOWN.

Health Officer, Isaac B. Briggs.

There was sickness at Conanicut Park Hotel in July, 1887. Premises were inspected. Stated cause of sickness, sewer pipe breakage and leaking into the well. Number of deaths not known.

There was an inspection made at the south end or Ferry, by six doctors and three citizens, who reported finding things in good condition. Had the water analyzed from several wells; water reported A 1.

Two sanitary inspections of nuisances during 1887.

I do not know of any location in this town that seems to be particularly unhealthy.

I report all nuisances to the town council. I do not know of any buildings but what are safe in case of fire.

Some few hogs died late in the fall with a disease pronounced cholera.

PORTSMOUTH.

Health Officer, Town Council.

No largely prevalent disease in any part of the town.

No particular inspection has been made or seemed to be needed.

No location that seems to be particularly unhealthy.

No serious disease of domestic animals has largely prevailed during the year.

BURRILLVILLE.

Health Officer, O. A. Inman.

There were no epidemics or any large prevalence of contagious or infectious diseases in this town during 1887.

All in good condition, so far as examined or known.

Inspections made at my own option.

No location in town that seems to be particularly unhealthy, to my knowledge.

I should report to the town council all nuisances dangerous to the public health, if brought to my knowledge.

No serious disease of domestic animals has largely prevailed in this town during the year.

EAST PROVIDENCE.

Health Officer, George E. Carpenter, M. D.

Scarlet fever had considerable prevalence, mostly in Watchemoket; 18 cases and 2 deaths; mostly in autumn months.

The same ordinance is in force here, in relation to isolation, as in the city of Providence, in regard to quarantine of cases of scarlet fever and diphtheria.

The cases of scarlet fever reported above were isolated as far as practicable.

Inspection of premises was made where the sickness prevailed as to their sanitary condition, in a few cases where there was reason to suspect unsanitary conditions. Nothing particularly bad found, except in one case, where there was a defective drain, which leaked into the cellar.

I have made eighty-seven sanitary inspections during 1887, most of which were cases of over-full cesspools and privy vaults and defective drains, a large proportion of which were called to my attention by the police.

A section around the Richmond paper mill, in the north part of the town, had an unusually large number of cases of malarial disease. I see no way to remove the cause.

I first call the attention of the owners of the premises to the condition of things, and in case of neglect or refusal to correct same, report to the council for their action.

I have no knowledge of the prevalence of any diseases of animals to any large extent.

GLOCESTER.

Health Officer, G. A. Harris, M. D.

A large prevalence of Rubella (Rötheln or German measles) in Chepachet village only; about 40 cases, but no deaths. Hardly a month during the year when there were no cases. Diphtheria in same village in July; 2 cases, no deaths.

Isolation was not attempted.

One sanitary inspection made during 1887 by order of the town council—that of a privy in the centre of the village; complained of on account of the great stench. Caused to be moved farther back on the lot.

No location in the town that seems to be particularly unhealthy to any considerable number of persons.

Reports will be made to the town council of nuisances dangerous to the public health, when such occur. There are no buildings in the town unsafe in case of fire.

No serious disease of domestic animals has largely prevailed.

JOHNSTON.

Health Officer, Elmer S. Fiske, M. D.

Scarlatina, epidemic; Johnston, especially Manton, and Providence city; large number of cases; mostly in December. Diphtheria and mumps, considerable in number; Johnston and Providence city; November and December. Malaria, large prevalence; Johnston; summer and fall.

Isolation was not generally maintained.

The proportion of the sick isolated was very small.

Inspection of some premises were made where sickness prevailed as to their sanitary condition. Cellars, sink-drains and privy-vaults, etc., that needed cleaning, undoubtedly were responsible, in a measure, in some cases of sickness.

Ordered a privy-vault cleaned out and disinfected on Waterman street. Ordered an old cesspool covered up which had been uncovered on the Flood estate, Plainfield street. The stench was fearful, and probably was a factor in four cases of malaria in the house.

Do not know of any location in town that seems to be particularly unhealthy to any considerable number of persons.

Report to town sergeant.

No serious disease of domestic animals has largely prevailed in this town during the year.

NORTH SMITHFIELD.

Health Officer, Joshua Wardle.

No epidemics or large prevalence of any disease.

Sanitary inspections of premises were made where sickness prevailed and otherwise.

The sanitary inspections during 1887 were made both by order of the town council and by my own option. One case of filth from privies near highway caused the most trouble. Made two inspections at different times of the villages of Waterford, Slatersville and Forrestdale, during the summer, thoroughly and in person.

No very unhealthy location in town known to me.

I report, soon as known, to the town council all nuisances dangerous to the public health.

No serious disease of domestic animals has largely prevailed.

SCITUATE.

Health Officer, Walter J. Smith, M. D.

There has been no unusual prevalence of any infectious disease in my circuit, nor any brought to my notice outside of my circuit.

No sanitary inspections during 1887 by order of the town council or from my own option, except as some individual case of sickness might seem to demand professionally.

Do not know of any location that seems to be particularly unhealthy to any considerable number of persons.

Should report to the town council nuisances dangerous to the public health, when known.

No serious disease of domestic animals known.

WOONSOCKET.

Health Officer, James P. Mulcahy.

There was a large prevalence of two contagious or infectious diseases in this town during 1887. Diphtheria, in and about centre of town; 35 cases; 9 deaths in November and 6 in December. Scarlet fever, all through the town; 100 cases; 28 deaths in November and 28 in December.

Isolation was well maintained in the latter part of December.

As to the proportion of the sick who were isolated, all were after the council ordered it done.

A large number of inspections of premises were made where sickness prevailed. I inspected where scarlet fever cases were, and found some places in a very unsanitary condition, sinks flowing into cellars, etc. We have no sewerage and are using a large amount of city water; but in the best localities we have had scarlet fever just the same.

Sanitary inspections were made during 1887 of my own option in relation to keeping hogs in the thickly settled part of the town, and the removal of same, having cesspools disinfected and cleaned properly, and so on.

There is a location in the town that seems to be particularly unhealthy,—Mill River, so called; in summer and fall the water is stagnant there and creates quite an offensive smell.

I report to the town council all nuisances dangerous to the public health and all unsanitary premises within my knowledge.

Do not know of any serious disease of domestic animals in this town during the year.

PROVIDENCE CITY.

C. V. Chapin, M. D., Superintendent of Health.

EXTRACTS FROM THE REPORT OF THE SUPERINTENDENT.

The health of the city during the past year was not as good as in the preceding year, the deaths reported being at the rate of 21.48 per thousand as against 19.62 per thousand in 1886. This rate is based upon an estimated population of 121,500, being an increase of only 3,430 since the census of 1885.

* * * * *

CONTAGIOUS DISEASES.

During the last four years the cases and deaths from scarlet fever, diphtheria, measles and typhoid fever have been as shown in the following table:

SCARLET FEVER.			DIPHTHERIA.		
Year.	Cases.	Deaths.	Year.	Cases.	Deaths.
1884.....	538	57	1884.....	193	58
1885.....	383	38	1885.....	146	37
1886... ..	237	30	1886.....	322	98
1887.....	848	153	1887.....	307	109

TYPHOID FEVER.			MEASLES.		
Year.	Cases.	Deaths.	Year.	Cases.	Deaths.
1884.....	122	52	1884.....	198	7
1885.....	87	44	1885.....	126	8
1886.....	104	53	1886.....	160	9
1887.....	66	39	1887.....	.....	89

During the early part of the year there was a widespread epidemic of measles, which interfered much with the work of the public schools. Though this is generally considered a mild disease, it caused 89 deaths. As the disease is contagious in its early stages, before the eruption appears, little can be done by the health department or by the school department to prevent its spread. The rules of the board of aldermen simply exclude those children suffering from measles until their complete recovery.

There were about the same number of deaths from diphtheria as in the preceding year. This disease is also difficult to manage. Our knowledge of its causation is not nearly as certain as is desired, and the difficulty of making a correct diagnosis and discriminating between this and ordinary forms of sore throat is very great. The more I see of the disease, the more I am convinced that it is chiefly spread by contagion. There has during the past few months been quite an epidemic on Mount Pleasant, and it does not seem possible to attribute it to any unsanitary conditions in that new and generally healthful locality. On the other hand, many cases were clearly due to direct contagion, and from what I have observed I feel confident that certain mild cases not recognized as diphtheria went about unrestrained, distributing the contagion.

At about the first of September an epidemic of scarlet fever set in, which continues at the present time, though with greatly diminished violence.

* * * * *

VACCINATION.

During the year 1887, the number of persons vaccinated was 917, making the total number of persons vaccinated by the health department since 1856, 49,241.

Humanized virus was used. The number of transfers made in 1887 was 29, making the total number of transfers since 1868, when an accurate record was begun, 270. The number of certificates of vaccination issued was 1,437. This makes the total number issued since 1856, 43,725.

SWILL.

During the year the swill was collected in the same manner as in previous years, and by the same contractors; for this service they received the sum of \$12,000. This work has in the main been done in a satisfactory manner. The number of complaints made by this office in regard to this service was 328, as against 259 in 1886. But very many of these were, as usual, due to the negligence of citizens in notifying this department of their return from the country or of a change of residence. * * * Many just complaints are also made in regard to the way in which the swill carts are driven about, with covers open and often with the swill heaped high above the sides of the carts. This certainly does cause a great nuisance, and the contractors should, without doubt, receive sufficient compensation to enable them to have the covers of the wagons down, except when the swill is actually being put in. As I have repeatedly said, however, the best and most satisfactory way is for the city to do this work with its own teams and not by contract.

Public dumps for offensive refuse of all kinds have been established at Long Point and at Acorn street, and men have been kept stationed at these places to see that decomposing material was at once covered.

NIGHT-SOIL.

No change has been made in the manner of removing night-soil. The present method is very unsatisfactory, and I have repeatedly recommended that this work be done by the city, in which case it would be well done, and the aggregate expense would not be as great as it now is. Every vehicle used for carrying night-soil is licensed only after inspection. The number of licenses granted during the year 1887 was 157.

NUISANCES.

Only one inspector was employed during the summer in looking after nuisances. There is no question but this work has resulted in greatly promoting the cleanliness of the city, and has been the means of inducing landlords generally to bestow greater care upon their property and keep it in better repair. The cleanliness of the yards, houses and cellars is increasing each year. The plumbing, too, is constantly undergoing improvement. Old wooden spouts are taken down and lead or iron pipes put inside the house and the sinks properly trapped. About the same number of complaints as usual are entered against privy-vaults.

The fact is, they are all nuisances. A privy-vault cannot be anything else. As I have said over and over again, it is a disgrace and a shame to allow a single privy-vault or cesspool to remain upon a street where there is a public sewer. A rule was adopted last year which it was hoped would be of service in getting rid of these vaults. The first case brought under it was appealed and has not yet been decided by the higher court, and it is questionable whether it will result in establishing the law. At the best, this rule is but a make-shift. As long as all privy-vaults are nuisances, it is unwise, impracticable and unjust to compel the removal of some and not all. Unquestionable authority to compel the removal of vaults and cesspools should be secured, and then all which are situated on sewer streets should be removed at once. There should be no further delay in this matter.

During the year, 421 complaints were made at this office by citizens in regard to nuisances. Of these, 322 were well founded; 99 were not. Besides these, 191 complaints were received from the police. The nuisances abated during the year were as follows:

Privy-vaults full and offensive.....	1,292
Cesspools full and offensive.....	236
Defective vaults and cesspools.....	87
Uncovered vaults and cesspools.....	43
Cesspools and vaults leaking onto adjoining estates.....	34
No vault to privy.....	1
No cesspool on estate.....	19
Cesspools and vaults leaking into cellar.....	40
Defective waste and drain pipes.....	482
No traps.....	331
Filthy yards.....	351
Filthy water flowing into the street.....	13
Defective water closets.....	19
Filthy cellars.....	79
Privy-vaults removed.....	16

The number of orders issued by your board in 1887 was 486. A large number of circulars giving directions in regard to proper plumbing and drainage have been distributed, doing, I believe, good service in helping to educate the public in these matters.

PAWTUXET WATER.

The board of public works report that they have during the year succeeded in removing all the privies from the banks of the Pawtuxet river. There are, however, certain places where drainage may at times get into the river, or where it may be washed in during freshets. The bleacheries, dye works and wool scouring works still discharge their effluent into the river. It also happens that occasionally dead animals, slops, night-soil and other offensive matters are thrown in. Much of this pollution can be prevented by a continued inspection of the banks of the stream, and I am glad to be able to report that the board of public works have detailed a man for this purpose.

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PAWTUXET WATER ANALYSES, 1887.

The analyses were made by Prof. John H. Appleton, at the laboratory of Brown University.

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Two analyses were made each month. The figures signify parts (in weight) in one million parts of water (in weight).

MONTHS.	Total Residue.	Mineral Matter.	Organic and Volatile Matter.	Common Salt.	Albuminoid Ammonia.	Ammonia.
January.....	46 38	28 24	18 14	4.46 4.17	.20 .18	.02 .06
February....	29 33	15 19	14 14	2.38 2.68	.16 .14	.04 .02
March	31 29	17 16	14 13	1.79 3.27	.16 .16	.01 .01
April.....	32 35	21 19	11 16	2.38 2.68	.18 .16	.02 .02
May.....	30 35	16 18	14 17	2.68 3.57	.18 .24	.02 .06
June.....	42 40	22 23	20 17	3.27 3.87	.18 .24	.06 .02
July.....	42 43	22 22	20 21	4.46 3.87	.36 .26	.08 .06
August.....	52 49	27 29	25 20	4.46 4.46	.24 .24	.10 .08
September ..	45 50	25 30	20 20	5.06 4.76	.24 .20	.03 .04
October.	44 43	24 25	20 18	5.65 5.06	.24 .24	.04 .06
November...	63 53	40 34	23 19	6.25 6.55	.28 .18	.02 .06
December. . .	51 48	33 31	18 17	6.84 5.65	.22 .20	.04 .03

While I do not believe that the Pawtuxet water is as healthful as it can be made to be, yet I have no hesitancy in saying that it is far safer than the average well water of this city. City wells are, as a rule, in close proximity to vaults and cesspools, the contents of which often leach through the soil for several hundred feet, undergoing no change on the way. It is certainly safer to take the chance

of having the 115,000,000 gallons daily flow of the Pawtuxet polluted by an occasional pail of slops or dead animal, than to take the chance of the contents of a privy-vault or a dead rat in the comparatively infinitesimal daily supply of an ordinary well.

SCHOOL-HOUSES.

It is pleasing to note that new school-houses are being built on Atwell's avenue and Veazie street, and that lots have been purchased and buildings will, during the coming year, be erected at Peace street and Academy avenue. It is also pleasant to note that a new system of disposal of excreta will be adopted in these new school-houses, which will effectually do away with the old-fashioned and obnoxious privy-vault. This new method is by dry air, and is a part of the Smead-Ruttan system of ventilation and heating. This is its first application in Providence, but it has been in successful operation elsewhere, and was reported by the committee on city property, who examined it, to be perfectly satisfactory in its results.

* * * * *

UNWHOLESOME PROVISIONS.

Early in the summer a special inspector was employed for a short time to look after the markets. And later in the season another inspector was employed for the same purpose. The markets of the city were thoroughly inspected, some of them several times, and a number of seizures were made of decayed meat and vegetables. In many cases the markets were found to be in a filthy condition. The visits of the inspector resulted in a great improvement, both as regards the general cleanness of the ice-boxes, benches, etc., and in the character of the goods offered for sale. Last summer I found it extremely difficult to find a man of sufficient judgment and experience for this work. It seems to me advisable, in view of this fact, to keep an inspector employed in this work all summer, for the experience of last year showed that there would be sufficient for him to do.

I also spent some time in investigating the subject of adulterations, and made a report to your board in regard to it. The report has not as yet been acted upon, but the prevalence of adulterations in certain articles of food and in drugs and spices, make it advisable that some preventive means should be taken. This seems to be a matter which can best be taken up by the State, and I recommend that application be made to the legislature for a general statute covering this subject.

* * * * *

REPORT OF THE MEDICAL INSPECTOR, 1887. -

The results of the year's work, ending December 31, 1887, are as follows:

	Scarlet Fever.	Diph- theria.	Typhoid Fever.	Totals.
Whole number of premises visited.....	572	220	57	849
Extra cases on the same premises.....	276	87	9	372
	848	307	66	1221
Change of diagnosis.....	33	10	..	43
Actual number of cases.... ,	815	297	66	1178

OCCUPATION.

Typhoid Fever. The 66 cases represent 24 different occupations; 10 cases (15.1 per cent.) being employed at out-door work, and 46 (69.6 per cent.) at entirely in-door work. Of the occupations, 15 (22 per cent.) were scholars, and the same number occupied in general housework or about the house. Six were operatives in mills.

Diphtheria. Of the 297 cases, 76 (25.5 per cent.) were school children.

Scarlet Fever. Of the 815 cases, more than 269 (33 per cent.) were scholars, many more cases coming down after the primary inspection had been made; most of the remainder were children too young to attend school, but to whom the school children had communicated the disease. As in all epidemics of so-called children's diseases, many adults have been attacked.

There were excluded from attendance upon the schools, public, parochial and private:

Individuals having scarlet fever.....	269
Individuals having diphtheria.....	696
Scholars in same house and in contact with these diseases.....	696
	<hr/>
	1041

The number of children enrolled in all the schools of the city is about 20,000. During the first eight months of the year there had appeared 241 cases; the balance, 574, occurred during the last four months and after the commencement of school. The school control has been greatly improved in many instances, partly from the alarm caused by an existing epidemic, and in one case the teachers have seen a local epidemic spread in front of their desks from negligence in dismissing suspected cases of illness. This was in the Carpenter street school, which was closed for fourteen days.

Two brothers, coming from outside of the State, entered the school at its opening on September 5th. On the second day they were taken down with scarlet fever, one dying within a few days. By the 26th of the month there had been excluded from the school 19 children having the disease, and 17 more who were liable to communicate the disease from the 19. It was decided by the school and health departments to close the school for a time. This was not a difficult matter, for the attendance had fallen off to more than half, from withdrawals, by fear of the epidemic. The school was kept closed two weeks. During that time but three new cases appeared, though more were expected from slow development. When school opened again, on October 10th, very few of the young pupils were sufficiently quieted in their fears to return. The teachers had become alert to the premonitory symptoms of the disease, and following instructions given before the closing of the school, they dismissed at once—for its own safety as well as the others—any child showing signs of flushed face, having a chill, or with sore throat, or who had an attack of vomiting, and they also sent home with the pupil all children in the same family. Excluding a child for one session would do little harm, even if no further symptoms should appear, and would save much trouble if the true symptoms of the disease should develop, which they probably would do within a few hours. There appeared in all 24 cases in this school, 19 of which occurred during the first three weeks

of the term. I have no reason to think that the sanitary conditions had anything to do with the causation of this epidemic, excepting that overcrowding and close air would assist in the spread of the contagion.

SANITARY CONDITIONS.

Yards. Were usually extremely clean; swill was scattered about on the ground in 11 instances, which is less than in preceding years. Swill was thrown into vaults in 18 instances only.

Vaults. There were found to be full in 65 instances. The instructions of the department are to report a vault as full when the contents reach within one foot of the top of the masonry. If a slightly lower measurement were given, a great many more cases would be reported. On the whole, however, it seems to be the intention of the owners of property to have these receptacles of filth cleaned regularly. It is to be hoped that this relic of barbarism, this preserving of excrement under one's own windows to contaminate air and soil about the house, will be replaced with the dry earth closets, or where sewers are adjacent, that connections will be made with the same. The interest on the money required to place a hopper closet in the cellar of a house is paid annually for removal of contents of the privy-vault.

Wooden spouts. These expensive adjuncts of the waste system were found placed in 123 instances, or about one in every nine cases; while there were also 7 iron or tin spouts. Of these outside spouts, 44 were found leaking at time of inspection, while all are liable to freeze in winter and cause not only inconveniences to the tenant, but by the backing up and overflow of waste water, walls and ceilings become saturated.

Waste connections:

Imperfect connections of waste pipe and drain pipe.....	50
“ “ “ “ “ sink.....	19
“ “ in waste pipes.....	8

77

Making 77 instances where the air of the house might be contaminated by the escape of gases forced or sucked back by the heat of the house from the cesspool or where a column of water, in descending from the pipes above, would force out the foul air from the pipes below, even when traps were applied.

Traps. On 352 premises no traps were to be found upon the waste pipes. In 25 other cases the cellar sink-wastes were unprovided with a trap, although they were found in the tenements above.

Water closets. These fixtures were found in 94 cases. Six of these were of some improved form of wash-out closet, 3 valve closets, 12 hopper closets, and the balance, 73, were of the condemned Bartholomew pattern, known as pan closets, very many of which had been newly placed in recently built houses.

Cesspools. There were 638 cesspools, many of them on sewered streets. Were these cleaned out as often as necessary, the outlay would be found in a few years to be equal to the cost of connecting with the sewer. In 13 cases there were provided neither sewer connection nor cesspool, all wastes being thrown upon or allowed to flow upon the ground.

Heating :

Steam heat was supplied in.	3 premises.
Furnace heat was supplied in.....	40 “
Cold air supply being taken from cellar bottom in.....	6 “

Refrigerator wastes were connected in such a way as to allow contamination of food in 5 cases only, most cases depending upon the preferable method of using a pan under the refrigerator drip.

Water supply :

Well water the only supply in.....	18 instances.
Well water and cistern.....	37 “
Cistern only.....	11 “
Well water and Pawtuxet.....	2 “
Cistern and Pawtuxet.....	1 “
	<hr/> 69

In all other cases, 780, Pawtuxet water was the only supply. As many are obliged to depend upon well and cistern water as the only supply, they should surely in case of disease be protected by the department by an analysis of the water used, and by closing up or cleaning of wells when necessary. In many cases it was known that the water of wells and cisterns was contaminated with the contents of cesspools or vaults leaching into the supply, by their proximity, the disgusting odor and by the sediment found in the water, yet this not sufficient to cause the owner to find a new supply or to improve the existing one.

If an attempt to keep the air supply pure by compelling the application of traps to waste pipes is to be made by the department, why is it not equally necessary to demand a pure water supply.

Milk supply. The milk supply has at no time been suspected of being the source of any disease, not even of mal nutrition, for I believe that inspection shows that the city of Providence is comparatively free from the usual adulterations and dilutions common in other cities. Only two complaints of poor milk were made, and I believe that in these cases the cause of the trouble was in the vessels used for storing the milk. However, as the adulteration of milk is not usually to be distinguished except by analysis, a constant supervision of the milk supply should be kept up; it should be known from what source the milk comes, the number of cows kept by each dealer, and there should be an inspection of all herds at intervals by an experienced veterinary, to exclude and destroy, if necessary, all animals liable to produce deteriorated milk.

In view of the fact that a large number of our domestic herds are the subjects of tuberculosis, or “consumption,” this control seems all the more necessary, for although it cannot be positively stated as yet that the disease can be communicated by ingestion of milk from tuberculous cows, it must at least be admitted that the milk coming from a cow diseased in any way must necessarily be deteriorated, and be a soil in which the ordinary as well as the disease germs may find a suitable condition for propagation. This control, of course, must necessarily come from the State, since the most of the supply comes from outside the city.

G. T. SWARTS, *Medical Inspector.*

CHARLESTOWN.

Health Officer, A. A. Saunders, M. D.

There was an epidemic prevalence of diphtheria at Carolina; 20 cases and 3 deaths; November and December.

[The village of Carolina is about equally divided between the towns of Charlestown and Richmond, and this epidemic prevailed alike in both towns; but I suppose the health officer of Richmond will report for that town. I will say, however, that there were in Carolina some 60 cases, with 9 deaths.]

Isolation was maintained in part.

The proportion of the sick isolated was about one-half.

Inspection of premises was made where the sickness prevailed in Charlestown, and the sanitary conditions found fairly good.

The sanitary inspections during 1887 were made from my own option.

Do not know of any location in town that seems to be particularly unhealthy.

Report is made to the town council of nuisances dangerous to the public health, when known.

No disease of domestic animals that largely prevailed in the town during the year.

EXETER.

Health Officers, the Town Council.

No contagious diseases have prevailed.

No sanitary inspections during 1887 by order of the town council were called for.

No unhealthy location that we are aware of in this town.

We do not know of any nuisances dangerous to the public health. Would abate them at once if any were found.

We have no knowledge of any serious diseases of domestic animals largely prevailing.

HOPKINTON.

Health Officer, J. D. Kenyon, M. D.

Some contagious diseases prevailed in 1887. Diphtheria, Ashaway and vicinity; 15 to 20 cases, but no deaths, in March and April; 17 cases and 1 death in October, November and December. Scarletina, not epidemic; 6 cases, but no deaths, in June and December. Whooping cough, not epidemic; 10 cases in November and December; no deaths.

Isolation was maintained in scarlatina and diphtheria.

The whole number of cases of diphtheria and scarlatina were isolated.

In regard to inspection of premises where sickness prevailed as to their sanitary condition, several were made to satisfy myself; none ordered. Some cesspools were advised to be moved, and one water closet.

The sanitary inspections made during 1887 were of my own option.

I have no knowledge of any location in town that seems to be particularly unhealthy.

I have had no occasion to report to the town council nuisances dangerous to the public health.

Have no knowledge of any serious disease of domestic animals during the year.

SOUTH KINGSTOWN.

Health Officer, John R. Wilcox.

Do not know of any epidemics, or any large prevalence of contagious or infectious diseases in this town during 1887. There have been a few cases of typhoid fever in this town, and not but a few.

All inspections of premises made where sickness prevailed were found perfect in regard to drainage, etc.

No location in town seems to be particularly unhealthy.

Whenever known, I report to the town council nuisances dangerous to the public health.

I do not know of any serious disease of domestic animals that has largely prevailed during the year.

RICHMOND.

Health Officer, A. H. Eccleston, M. D.

Diphtheria prevailed epidemically in Carolina. My own cases numbered 18, with 3 deaths, in October and November. Same locality, other cases, according to best knowledge obtainable, numbered 24, with 10 deaths, in October, November and December.

At Carolina isolation was attempted, but could not be fully maintained. At Shannock it was maintained.

Of the proportion of the sick with diphtheria isolated, none scarcely in Carolina; in Shannock, the three cases were isolated, and no other cases occurred.

Premises were inspected at Carolina and Shannock, and sink-drains and cess-pools were in unsanitary condition in both places.

The sanitary inspections made during 1887 were of my own option.

Do not know of any location in the town that seems to be particularly unhealthy to any considerable number of persons, except as above stated.

I report to the town council nuisances dangerous to the public health, if any are found.

No serious disease of domestic animals.

WESTERLY.

H. W. Rose, M. D., Supt. of Health.

The following contagious or infectious diseases prevailed in this town during 1887 :

Diphtheria, large prevalence; 75 cases; spring and fall. Typhoid fever, 16 cases; fall. Scarlatina, 22 cases; spring.

Isolation was maintained as a rule.

From information obtained of the physicians, I should think isolation was practiced where it could be.

In some cases inspections were made, and where nuisances were discovered the proper remedy was applied. Have no record, but will have in the future.

Nuisances and inspections of same referred to me have been looked after and ordered abated. Council was called upon in one case.

No particularly unhealthy location in this town.

I report to the town council nuisances dangerous to the public health, when discovered.

No disease of domestic animals has largely prevailed during the year.

METEOROLOGY.

It has been remarked in previous reports of the Board that the influences of the conditions of the atmosphere upon disease are recognized and acknowledged by all pathologists, and the following tables are therefore introduced, as heretofore, for the purpose of comparing the large prevalence of certain diseases at different periods of the year, with the temperature, the barometric pressure, the relative humidity, prevailing direction of the wind and other conditions of the atmosphere, and also the amount of rainfall during each month of the year. The said diseases may be found in the reports upon the registration of deaths by months, Table VIII., Part II.

The first table is compiled from the monthly reports of the City Engineer of Providence, and shows the mean, maximum and minimum temperature of the different months, and the extremes and average daily ranges of the same, the rainfall and prevailing direction of the wind.

The second table will give a more comprehensive monthly summary of observations during 1887, including a larger number of atmospheric conditions for each month, and also yearly summaries for each of the four preceding years.

It is condensed from the annual summary of monthly observations at Hope Reservoir and the City Hall.

The meteorological observations taken on Block Island are furnished by the courtesy of the officers of the Signal Office, War Department, Washington, D. C.

Temperature, Rainfall and prevailing direction of the wind, for each month during the year 1887.

MONTHS, 1887.	TEMPERATURE.							Total amount of Rain or Melted Snow in inches.	Prevailing Direction of the Wind.
	Monthly Mean.	Maximum.	Minimum.	Monthly Range.	Greatest Daily Range.	Least Daily Range.	Average Daily Range.		
January...	26.7	58.	-1.5	59.5	33.5	4.5	17.1	6.61	N. & N. W.
February..	30.2	54.	7.	47.	24.	5.5	14.8	5.87	N. W. & N.
March.....	32.2	58.5	13.5	45.	27.5	7.5	14.7	4.74	N. W.
April.....	45.	83.5	24.5	59.	32.5	4.	17.3	4.40	N. & N. W.
May.....	61.8	88.5	43.5	45.	31.5	4.5	19.7	2.23	S.
June... ..	66.7	94.	46.5	47.5	41.5	7.	20.	4.24	S. & Var.
July.....	76.6	94.	63.	31.	23.	6.5	16.3	6.09	S. & S. W.
August	68.2	91.	50.5	40.5	29.5	6.5	17.	5.87	N. & N. W.
September.	59.9	78.5	39.	39.5	30.	6.	16.4	1.58	N. & W.
October....	51.7	75.	29.5	45.5	23.5	5.5	15.1	2.99	N. W. & Var.
November.	41.2	66.	11.	55.	32.	6.5	16.	2.16	N. W. & W.
December .	32.7	56.5	7.	49.5	24.	5.	12.8	4.20	N. W. & N.

Mean temperature for the year 1887 was 49.4 Fah. Total amount of rain or melted snow, 50.98 inches.

Yearly Summary for 1886.

Means for the year.	30.01	.....	1.13	48.8	.....	46.8	74	.....	.....	.....	8	.....	.....	.....	.....	5.	.....
Totals for the year.	.....	.....	.....	.....	.....	.....	.....	51	27	12	7	56	30	39	69	74	.....
Extremes.....	30.80	28.63	2.11	.....	95.5	-5.5	101.	.....	.....	.....	.....	.....	.....	.....	.....	.....	54.50

Yearly Summary for 1885.

Means for the year.	29.98	.....	1.09	48.7	.....	46.6	71	.....	.....	.....	9	.....	.....	.....	.....	4.6	.....
Totals for the year	.....	.....	.....	.....	.....	.....	.....	46	21	8	14	56	43	42	74	61	.....
Extremes.....	30.82	28.99	1.83	.....	93.5	-1.0	94.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	43.57

Yearly Summary for 1884.

Means for the year.	30.01	.....	1.05	49.5	.....	49.2	76	.....	.....	.....	9	.....	.....	.....	.....	5.3	.....
Totals for the year.	.....	.....	.....	.....	.....	.....	.....	57	22	8	14	42	60	57	63	73	.....
Extremes.....	30.79	28.93	1.86	.....	94.	-10.	104.	.....	.....	.....	.....	.....	.....	.....	.....	.....	57.50

Yearly Summary for 1883.

Means for the year.	30.05	.....	1.08	48.2	.....	45.5	72	.....	.....	.....	2.2	.....	.....	.....	.....	5.1	.....
Totals for the year.	.....	.....	.....	.....	.....	.....	.....	43	31	7	11	41	51	35	70	73	.....
Extremes.....	30.77	28.88	1.89	.....	93.	-9.5	102.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	45.71

The force of the wind and amount of cloud are expressed approximately in figures from 0 to 10. * Snow and rain.

Mean Force.

Statement showing the air pressure, reduced to sea level and standard gravity, the temperature, precipitation, and the prevailing direction of the wind, for each month of the year 1887, at Block Island, R. I.

MONTH: 1887.	BLOCK ISLAND, R. I.											
	PRESSURE.			TEMPERATURE.							Precipitation in inches.	Prevailing Wind, direction.
	Mean.	Highest.	Lowest.	Mean.	Maximum.	Minimum.	Absolute Range.	Daily Range.				
								Mean.	Greatest.	Least.		
January.....	30.004	30.620	29.246	31.4	56.1	1.8	54.3	16.6	31.3	5.5	6.98	S. W.
February....	30.176	30.936	29.207	32.3	54.1	11.8	42.3	13.7	27.0	5.3	7.02	N. W.
March.....	29.872	30.762	28.966	33.7	53.7	17.2	36.5	11.8	20.2	6.6	4.49	N.
April.....	29.952	30.665	29.138	43.2	66.8	25.	41.8	11.6	21.9	4.3	3.49	S. W.
May.....	30.060	30.35	29.60	55.8	77.4	43.8	33.6	12.2	21.1	5.7	0.51	S. W.
June.....	30.016	30.31	29.65	61.7	80.	49.2	30.8	11.3	22.6	4.2	2.75	S. W.
July.....	29.975	30.22	29.58	71.4	83.4	59.2	24.2	10.1	16.6	5.6	7.52	S. W.
August.....	29.966	30.30	29.67	68.5	82.5	49.3	33.2	10.8	20.8	4.1	3.13	S. W.
September...	30.080	30.45	29.57	61.5	74.	47.	27.0	9.9	15.1	3.5	2.00	S. W.
October....	29.997	30.48	29.43	54.1	70.5	36.	34.5	10.4	17.2	3.1	2.28	S. W.
November...	30.010	30.78	29.32	45.3	60.	19.9	40.1	12.0	24.2	5.8	1.68	N. W.
December...	30.055	30.89	28.88	37.3	58.	12.6	45.4	11.3	23.1	5.3	2.70	N. W.
Annual.	30.014	.....	.....	49.7	.....	.....	.....	.....	.....	.....	44.55	S. W.

Mean temperature, 49.7.

Total of rain and melted snow, 44.55 inches.

Signal Office, War Department, Washington City.

CATTLE COMMISSION.

The general health of the more important of the domestic animals of the State, cannot be stated as having been as good through the year 1887, as during the four or five preceding years. Not that any unusual or any virulent disease of an acute character has been widely spread, or that any disease largely fatal to life, except the swine plague in a few very limited areas, has had epidemic prevalence in any one locality. Nor has any disease, never occurring in epidemic form, had unusually large prevalence in any particular section or locality, with the exception of tuberculosis at the State Farm.

From the reports received from various parts of the State, and from circumstances within the observation and knowledge of the Secretary, it is evident that the diseases of common occurrence, from year to year, have been the causes from which the major part of the sickness of domestic animals has been derived during 1887.

Although the supervision of the Board has relation only to the contagious and infectious diseases of domestic animals, it may properly be stated that the increased amount of disease not contagious among such animals was principally among horses, and of the acute forms, and largely of pneumonia, spinal meningitis and inflammation of the throat and air passages.

GLANDERS.

During the first six months of 1887, the number of horses suspected of having glanders, and seen by the Secretary, was less than during any previous six months within the last six years. The number of cases of confirmed glanders was even less than the usual proportion of suspected cases. The number found glandered and destroyed during the third quarter of the year was larger than the average of previous years, and in the last quarter the number of cases confirmed and destroyed, attained proportions larger than during any quarter since 1878.

During the same period of time, there was a large accession to the usual number of cases of glanders in horses, in Massachusetts, Connecticut, southern New York and northern and central New Jersey, and in some of the Western States, and the Province of Ontario.

Of its prevalence in Pennsylvania, west of Philadelphia, and some other central States, information was not obtained. In the city of Boston and vicinity, the disease had very large prevalence, and some of the diseased animals were taken to Rhode Island.

Of the cases of glanders (including farey) destroyed during 1887, all but one were owned in Providence county. They were found in the different towns as follows :

Providence city, 24 ; Pawtucket, 10 ; Johnston, 5 ; Cranston, 3 ; North Providence, 3 ; Lincoln, 2 ; East Providence, 1 ; Warwick, 1.

By the census of 1885, there were 26,000 horses in the State. The increase during the periods between each of the last four census years has been about ten per cent., or two per cent. a year. The number of horses in 1887, by that computation, was therefore somewhat in excess of 27,000. The number that were killed, and including one that died, because affected with glanders, were in the proportion of one case of glanders disposed of to every five hundred living horses, or two horses in every one thousand were found glandered.

This calculation, however, is based on the whole number of horses in the State, whereas, all but one of the horses destroyed because of confirmed glanders were found in Providence county. If the number of horses in that county, about 16,000, be taken as the basis of computation, the proportion was one glandered horse disposed of in every three hundred and thirty-three not so diseased, or about three horses found glandered in every thousand.

Without vigilance in the detection and prompt destruction of glandered horses, the proportion would in a short time be ten or twenty times larger.

CONTAGIOUS PLEURO-PNEUMONIA.

On the 28th day of February, 1887, the Secretary had his attention called to a newspaper rumor, which was to the effect that a cow had died in South Boston of contagious pleuro-pneumonia, and that the animal was one of twenty which had been brought in a car together from Buffalo, N. Y., to Brighton, Mass., and that the animals had all been sold to different parties, and it was believed that some of them had been sold to Rhode Island buyers and taken home for sale.

No notice had been received by the Secretary from the Cattle Commission of Massachusetts, or from any official source, of such occurrences, but the extremely infectious and contagious nature of the disease, its virulent and inveterate characteristics, making it the most dreaded of any disease affecting the cattle interests of America now existing, and the great loss that must inevitably ensue, if it once got a foothold to any extent on Rhode Island soil, was sufficient to cause prompt action on the part of the Secretary to ascertain the truth or falsity of the rumors then extant.

Failing to ascertain by telegraph from different sources anything further than that a cow had died of the disease at South Boston, and that the Mass. Cattle Commission had issued a circular to all the municipal authorities of that State, to forbid the movement of cattle from place to place, except such as were intended for immediate slaughter, and that it was stated that four cows of the twenty had been sold to go to Rhode Island, the Secretary decided to personally investigate the matter.

A meeting of the State Board of Health was called for March 2d, and the Secretary went to Boston and Brighton on March 1st, obtained a full history of the circumstances, saw the lungs of the animal that had died, learned the probable destination of the animals sold to Rhode Island parties, and at the time of the meeting of the Board, on the day following, had found the animals in different places, had isolated them from all others and quarantined all that had been in contact with them.

Notice was given to the Chief of the Bureau of Animal Industry in Washington, D. C., and an Inspector of the Bureau, Dr. W. H. Rose, visited the isolated animals and approved of the entire methods of isolation and quarantine which had been established.

Subsequently, the indisposition of any persons to take charge of or furnish accommodation for the animals that had been first exposed, the large expense of keeping, and the sense of insecurity so largely felt among the owners of cattle in the neighborhood and extending into the surrounding towns, was such as to justify the killing of the originally exposed animals as a matter of policy.

After the expiration of the usual term of quarantine, and by the written consent of the U. S. Commissioner of Agriculture, the restrictions imposed by quarantine were removed and a great feeling of relief was experienced through the communities.

The existence of the disease in several of the counties of New York,

during the spring and summer of 1887, caused the issuing of a notice forbidding the introduction into Rhode Island, from those counties, of any neat cattle, except for immediate slaughter. The order was subsequently extended to include the whole State of New York. Complaint was made by the Cattle Commission of Massachusetts that cattle from New York State were smuggled into Massachusetts through Rhode Island. The Secretary requested officials along the borders of the State to exercise vigilance in the detection of such forbidden acts, who reported that no information of such acts could be obtained, and the Secretary could not learn from inquiries of railroad officials or employes of any violation of the order forbidding the transportation of cattle, for other than purposes of slaughter, from the interdicted State.

A great amount of labor was expended during 1887, under the direction of the U. S. Commissioner of Agriculture and the Chief of the Bureau of Animal Industry, in the endeavor to entirely extirpate contagious pleuro-pneumonia in several of the States of the Union. The amount appropriated by Congress to be expended under the Contagious Diseases of Cattle Act of 1884 was very largely increased early in 1887, and the results accomplished by the Bureau, or under its supervision, have been the complete stamping out of the disease in many localities.

The Act of 1884, previously alluded to, has been presented in part in previous Reports of the Board, with comments and interpretations. It seems probable that, if the appropriations by Congress are continued to an amount equalling that of 1887, the existence of contagious pleuro-pneumonia in the United States would be, in the near future, a circumstance only of the past.

During the January Session of the General Assembly of 1887, the following Act, framed by the Secretary (and substantially of the same purport as others introduced at his request at previous sessions), was passed, without dissent, so stated :

PUBLIC LAWS.

CHAPTER 637.

AN ACT IN ADDITION TO CHAPTER 84 OF THE PUBLIC STATUTES, "OF CONTAGIOUS AND INFECTIOUS DISEASES AMONG CATTLE."

It is enacted by the General Assembly as follows:

SECTION 1. All persons having knowledge or reason to suspect that any neat cattle or bovine animal has the contagious pleuro-pneumonia, or Texas cattle

fever, or that any horse has glanders or farcy, or that any bovine animal or horse has any other highly contagious or infectious diseases dangerous to life, shall make report concerning the same by mail or otherwise to the Secretary of the State Board of Health immediately, giving the name of the owner or custodian of the said animal or animals, and place of keeping of the same.

SEC. 2. No person having the care or custody of any animal having any one of the diseases mentioned in the preceding section shall, knowing the same to have any such disease, sell or exchange or permit the removal, use or driving the same upon any public highway, or the exposure of the same to contact with any other healthy animal of the same kind, except by permission of some member or agent of the State Board of Health.

SEC. 3. All persons having the care or custody of any domestic animal having or suspected of having any fatally infectious disease shall permit any member of the State Board of Health, or any authorized agent of said Board, to have access to and the full examination of any such animal, and if such animal shall have any such disease, any person so having the care and custody of such animal shall securely and safely keep the same entirely isolated from all other animals of the same kind, when so directed by any member of the State Board of Health or its authorized agent.

SEC. 4. Whenever any necessary expense has been incurred in the performance of the duties required by chapter 84 of the Public Statutes and amendments and additions thereto, by any member or authorized agent of the State Board of Health, or any person acting under the order of said Board or its agent, an itemized account of the same shall be presented the said State Board of Health, and said Board shall make such full or partial allowance of such itemized account as shall be deemed just and reasonable, and upon such approved allowance, when certified by the President of the said Board and approved by the Governor, the State Auditor shall draw his order on the General Treasurer for the payment of the same out of any moneys not otherwise appropriated.

SEC. 5. Every person violating the provisions of this act shall be subject to the penalties provided in chapter 84 of the Public Statutes, of which this act is in addition, and all acts and parts of acts inconsistent herewith are hereby repealed.

SEC. 6. This act shall take effect immediately on and after its passage.

Subsequently, in compliance with the request of Hon. Norman J. Colman, U. S. Commissioner of Agriculture, of which the Bureau of Animal Industry is a sub-department, an Act, designed to enable the Bureau to carry out more efficiently the intent and purpose of the Congressional Act of 1884, in relation to contagious and infectious diseases among domestic animals, was also favorably considered by the General Assembly and passed May 6, 1887. The Act was as follows:

PUBLIC LAWS.

CHAPTER 643.

AN ACT TO COÖPERATE WITH THE UNITED STATES IN THE SUPPRESSION AND
EXTIRPATION OF PLEURO-PNEUMONIA.

It is enacted by the General Assembly as follows:

SECTION 1. The governor is hereby authorized to accept on behalf of the state the rules and regulations prepared by the commissioner of agriculture under and in pursuance of section 3 of an act of congress approved May 29, 1884, entitled "An act for the establishment of a bureau of animal industry, to prevent the exportation of diseased cattle and to provide means for the suppression and extirpation of pleuro-pneumonia and other contagious diseases among domestic animals," and to coöperate with the authorities of the United States in the provisions of said act.

SEC. 2. The inspectors of the bureau of animal industry of the United States, in coöperation with the state board of health, shall have the right of inspection, quarantine and condemnation of animals affected with any contagious, infectious or communicable disease, or suspected to be so affected, or that have been exposed to any such disease, and for these purposes are hereby authorized and empowered to enter upon any ground or premises. Said inspectors in coöperation with the state board of health shall have the power to call on sheriffs, constables and peace officers to assist them in the discharge of their duties in carrying out the provisions of the act of congress approved May 29, 1884, establishing the bureau of animal industry; and it is hereby made the duty of sheriffs, constables and peace officers to assist said inspectors when so requested; and said inspectors shall have the same powers and protection as peace officers while engaged in the discharge of their duties.

SEC. 3. All expenses of quarantine, condemnation of animals exposed to disease, and the expenses of any and all measures that may be used to suppress and extirpate pleuro-pneumonia shall be paid by the United States, and in no case shall this state be liable for any damages or expenses of any kind under the provisions of this act.

SEC. 4. This act shall take effect immediately.

TUBERCULOSIS.

Remarks in relation to the nature of tuberculosis and its prevalence in Rhode Island were made at considerable length in the ninth annual Report of the Board.

There has been no occasion since to change the opinions therein presented, as regards the usual characteristics of the disease or the general prevalence of it throughout the State, with the statement, however, that, with greater inquiry and larger observation, it has been

found that the centres of the disease in certain herds and localities are somewhat larger in number than was apprehended at the time of writing that report.

It was stated therein "that reports had been received from Maine, New York, New Jersey, Ohio, and other States, giving accounts of the entire destruction of whole herds of bovines, mostly of milch cows, because of the evident contamination in a greater or less degree of the whole stock by the infection of tuberculosis."

It was not then suspected, as was afterwards ascertained, that a large centre of infection, although much smaller than in some other States, existed within the borders of our own State. That centre was at the State Farm in Cranston. No better account can be given of the outbreak there than by the following extract from a report made by a sub-committee of the Board of State Charities and Corrections (Messrs. L. B. Smith and W. W. Chapin), which will give a concise history of the principal circumstances connected with the development and progress of tuberculosis at that place:

"On February 19, 1887, an ox, which had become useless as a draught animal, was killed for beef. The officer in charge of the barn and slaughter-house noticed that the lungs and other viscera presented an abnormal appearance, and called the attention of the Superintendent, Mr. Eastman, thereto. Dr. Keene, resident physician, who was consulted, gave an opinion that the abnormal appearance was due to the presence of tubercles. Mr. Eastman at once informed the Secretary by telephone and asked advice regarding the use of the carcass for food. The Secretary advised him not to use the beef without more knowledge than he then had, and to consult a veterinarian. Dr. C. H. Peabody, V. S., was summoned and confirmed Dr. Keene's opinion as to the character of the disease, informing Mr. Eastman that the ox had been suffering with tuberculosis, and that the disease was present in other animals of the herd, especially a Jersey bull. The Secretary at once notified the Committee on the Farm, requesting them to meet at the barn on February 26th. On the day appointed, the committee met with Dr. Peabody, and the bull above named and a heifer were killed and examined. Both animals were found to be badly affected with tuberculosis. The committee instructed Mr. Eastman to destroy the carcass of the ox as well as those of the bull and heifer.

At the meeting of the Board, March 4th, the subject was brought to their attention by the Committee on the Farm, and the committee

were requested to continue their investigations of the disease, and authority was given them to cause such of the cattle to be slaughtered as might be required for that purpose.

March 7th, Messrs. Hopkins and Chadsey, of the Committee on the Farm, Dr. Fisher, of the State Board of Health, Dr. Peabody, Mr. Eastman, Dr. Keene and others, met at the barn to continue the investigation. Two cows and a calf were slaughtered, one of the cows and her calf showing when alive slight symptoms of tuberculosis, and the other cow, to quote Mr. Eastman, 'as perfect a picture of excellence and health as any there were in the barn.' The autopsies showed unmistakable marks of tuberculosis in all three of the animals. The committee, wishing for still further information before coming to any decision, requested Dr. Peabody to invite Dr. Josiah H. Stickney, of Boston, one of the leading veterinarians of New England, to meet the committee at an early day.

March 12th, Dr. Stickney, Dr. Peabody, Messrs. Smith and Hopkins, of the Committee on the Farm, the Chairman and the Secretary of the Board, Mr. Eastman, Dr. Keene, Dr. Phillips, and Mr. Lincoln, of the *Journal*, were present at the barn. Several animals were killed, and although the evidences of disease were not so marked as in previous cases, all were found to be more or less affected. It was thought at the time that the viscera of a young heifer were free from the disease, but a more careful examination made subsequently by Dr. Keene and Mr. Jackson brought to light a small bunch of tubercles in the lungs.

Dr. Stickney's opinion was that the disease could be exterminated only by killing the entire herd, as all the animals were probably more or less tuberculous. The Committee on the Farm were not inclined to accept at once Dr. Stickney's views, and came to no decision as to the course to pursue, giving the Superintendent no instructions; but in the evening of the same day Mr. Eastman and the Secretary, after conferring together by telephone, took the responsibility of requesting Dr. Peabody to inspect carefully the entire herd, so that the animals showing symptoms of tuberculosis might be separated from those apparently well.

On Sunday, March 13th, Dr. Peabody examined the herd and divided it into three classes, viz.: 'Good,' 22 cows and 1 bull; 'Doubtful,' 23 cows; 'Suspicious,' 5 cows. The word 'Suspicious' does not seem to have been well chosen; by it was meant to indicate those animals having apparently marked symptoms of tuberculosis. For a time Mr. Eastman kept the three classes separated, and ceased, under

the advice of Dr. Peabody, to use the milk of the cows classed as 'Suspicious.'

Again, on April 1st, the condition of the cattle was brought to the attention of the Board,—at this time by the Superintendent, who was desirous of receiving definite instructions. Some of the cows classed as 'Doubtful,' as well as some classed as 'Good,' were showing symptoms of tuberculosis. The Board accordingly voted 'to request the Committee on the Farm to report to the Board with recommendations as to what course should be pursued in regard to the cattle at the Institutions, all of which are affected with tuberculosis, or have been exposed to said disease.'

At the meeting of the Board, April 15th, the following report of the Committee on the Farm was received :

'At a meeting of the Committee on the Farm, held April 2d, the following action was taken :

Resolved, To recommend to the Board that all of the cattle in the large barn of the State Institutions be killed; at first those known to be diseased, and then the remainder, one by one, according to their condition as regards fitness to be converted into beef and according to the needs of the Institutions, fattening for the purpose such as may require it, and using only such carcasses for beef as the Superintendent and Physician may consider proper for such use.

As a majority of the members of the Board were present and all of them acquiesced in the decision of the committee, it was thought advisable to instruct the Superintendent to commence at once to slaughter the cattle, as such action would be, it was believed, for the best, and would doubtless be ratified by the Board.'

The Board adopted the report, thus ratifying the action of the committee. It was thought that, by taking this course, a portion of the cattle might be used for beef, before the whole number should become seriously diseased.

The animals were accordingly slaughtered for beef, and about one-half of the carcasses utilized, the last of the fifty-one examined and classified March 13th going to the slaughter-house May 24th. Besides these, several calves had been killed, and there remained of the entire herd but two young heifers and the working oxen. The heifers were not killed until July, and the oxen, except one, were still alive August 1st. The autopsies of almost all of the animals killed showed evidences of tuberculosis.

On March 2d, the Secretary of the State Board of Health and the Secretary of the State Board of Agriculture were informed by the

Secretary of the Board of State Charities and Corrections that tuberculosis had been discovered in the herd of the State Institutions. Dr. Fisher was invited to be present on March 12th, on the occasion of the visit of Dr. Stickney, of Boston, but had an engagement on that day in Boston in consultation with Dr. Salmon, chief of the Bureau of Animal Industry, in regard to the apprehended invasion of Rhode Island by the contagious pleuro-pneumonia."

The occurrence of the disease in such large numbers, and in such large proportion to the whole number on the same premises, naturally aroused a considerable amount of attention and inquiry on the part of the general public, and no little amount of solicitude on the part of the cattle owners in the State and in the counties adjoining in other States.

The interest in the subject continued, and at the May Session of the General Assembly the following Resolution was passed without opposition :

Resolved, That the State Board of Health be and they are hereby requested to investigate the subject of tuberculosis and other contagious and infectious diseases among the neat cattle of the State, to ascertain the nature, symptoms and modes of propagation, and by visitation of herds and otherwise to learn the extent to which the disease is now prevalent in the State, and as far as may be the means of restriction and prevention, and report upon the same at the January Session of the General Assembly; and the sum of five hundred dollars or so much thereof as may be needed is hereby appropriated for the expenses of such investigation, and the State Auditor shall draw his order on the General Treasurer for the payment of such bills as are incurred in pursuance of this resolution, when certified by the chairman of the said Board and approved by the Governor.

[Passed June 17, 1887.]

As previously stated, a larger number of cases of tuberculosis have come under the observation of the Secretary than in any previous year, which may be accounted for by the fact of notices being given of diseased cows in a much larger number than in previous years (not one-third of which, however, showed evidence of tuberculosis), and by the additional fact of more extended inquiry and investigation on the part of the Secretary.

The Board referred the whole matter of the investigation, in compliance with the resolution and its provisions, to the Secretary.

The demands upon the time of the Secretary during 1887, in the protection of the property invested in Rhode Island in cattle and horses (more than \$5,000,000), taking some part of 197 days during

the year, in addition to other multiplied and onerous duties, have made it impossible to give such attention to the subject of tuberculosis as was desired and intended.

It is the purpose, however, to pursue the investigation with such deliberation and such attention to details as will place before the citizens of the State all the information derivable from accessible sources, by inquiry and observation.

SWINE PLAGUE.

The swine plague, or hog cholera, as it is generally called, and as it has usually occurred in this State, has had less prevalence than in the three or four previous years. Very great attention has been paid during the last two years to the swine diseases, which have been regarded the same as that which has been called hog cholera, but which pathological investigators in this country and in Europe are now disposed to consider as distinct diseases. Investigations are still in active progress, and it is hoped that the results of the same will at no distant day definitely settle all controversies in relation to them.

Diseases of domestic animals, other than those given above, have not occurred in any unusual number during the year.

POLLUTION OF PROVIDENCE RIVER.

The report upon the pollution of Providence river and its tributaries, in compliance with a resolution of the General Assembly at the January Session, which had been prepared and was approved by the Board and the Secretary instructed to present to the General Assembly at the May Session in Newport, was presented as directed, and received, read and filed. The Secretary had drawn an act in pursuance of the recommendation of the report that "the General Assembly proceed to the enactment of such laws as will assure the commencement forthwith of such measures as will finally result in the purification of the waters of the rivers aforesaid." The act was introduced in the Senate, was referred to the committee on public health, reported with the recommendation of the committee, passed the Senate and communicated to the House of Representatives, where it was referred to the January Session of 1888.

The report was as follows :

To the Honorable the General Assembly :

At the January Session of the General Assembly in 1887, the following resolution was passed :

RESOLUTION

"Requesting the State Board of Health to inquire into the pollution of Providence River.

Resolved, That the State Board of Health be and are hereby requested to investigate and report to the General Assembly as soon as may be convenient, whether the pouring into the rivers flowing through the city of Providence of the refuse matter and filth from manufacturing establishments and other sources is a cause of disease among the people, with such recommendations concerning the subject as in their opinion will tend to the protection and preservation of the public health."

In compliance with said resolution and in the failure of an appropriation for such investigation, the State Board of Health respectfully, at this the first succeeding session of the General Assembly, respond as follows :

In the year 1880, the Board commenced an investigation of the kind now required by the General Assembly; waters were collected from the Moshassuck and from the wells liable to supply, in whole or in part by the waters of the same stream, analyses of which were made in the laboratory of Brown University. The Secretary of the Board made personal visitations of the families residing in the vicinity of the same stream, to ascertain what diseases had prevailed and were prevalent, and with what virulence and with what fatality; and also the physical condition of the children and other inmates of the same families, as to general good health, appearances of vigor of body and otherwise.

It was designed to continue the investigations from year to year as far as the funds placed at the disposal of the Board would allow, until the Board were satisfied by the information obtained as to the danger to the public health from the pollution of the Moshassuck and other streams of water. At the January Session of the General Assembly following, the appropriation for the Board was cut down to a sum barely sufficient to defray current expenses.

The duties of the Secretary were also largely increased in other directions, and farther investigations of the Board were not continued. Bills have been introduced at different sessions of the General Assembly since, designed to cause investigations to be made as to the effect upon the public health of certain polluted waters under the supervision of the Board, but have failed of passage.

The Board, however, have other and much larger data than mentioned above as to the pollution and influence, upon the public health, of the Providence river and its tributaries. Dr. E. M. Snow, Supt. of Health, had called the attention of the city government of Providence to the danger menacing the health of the citizens of the city during three consecutive years, viz., 1876, '77, '78, with published statements; and in 1883 an investigation was made by the joint standing committee on the City Engineer's department; and since by the present Supt. of Health, Dr. C. V. Chapin, by means of circulars sent to physicians for the purpose of obtaining facts and opinions in regard to the unhealthfulness of the said waters. Amply sufficient information is therefore available to justify the Board in the unqualified statement that the waters of the streams in question *are* largely polluted with noxious materials, and that the public health has suffered therefrom.

And it may be remarked, also, that the evidence seems conclusive, from the information so variously obtained, that the larger part of the material most harmful to human health, by which the Moshassuck, the Woonasquatucket and Providence rivers are polluted, is poured into said streams within the limits of the city of Providence, and consists, in much the larger part, of human excreta.

As to the *different kinds* of materials forming a part of the manufacturers' wastes, which are poured or thrown into the same waters, and from which *kinds, solely and exclusively*, are set free, in the processes of decomposition, such gases or volatile particles of matter as are believed to be inimical to human health, the Board have obtained no absolutely conclusive information.

In regard to a more extended investigation of the waters of the said streams, and especially in relation to the *extent* to which the pollution of the said waters is a cause of ill health among the people, the Board respectfully further remark, that it is not unusual for legislative bodies, State and municipal, to refer questions of a like character to State and municipal committees or boards of health.

The printed reports of State Boards and City Boards of Health frequently contain the results of sanitary investigations, which have a large general as well as local value, and which are prepared by experts in the several lines of inquiry, and under the supervision of State or municipal boards, and at a greater or less expense.

It is not known to the Board that any investigation of any large importance has ever been made, in this State or elsewhere, without the means of defraying the expenses of the same. If the General Assembly desire to obtain further knowledge of facts, and in addition to those already obtained, as far as skilled and careful investigation can obtain them, facts as to the production of disease or amount and kind of disease, if any, which results from the pollution of the streams of water running into and through the city of Providence, it should be understood that several weeks of time would be required and considerable pecuniary expense unavoidable.

If it was found upon such further investigation that sickness *was* produced by the pollution of the waters of the said rivers, to such an extent as to demand the abatement or removal of such pollution, in verification of previous investigations, it might *then be found necessary*, in the interest of the public health, to ascertain what were the *particular* kinds of material in the polluted waters derived from manufacturers' wastes which were sources of danger, those of common sewage being known.

Such investigation would be necessary in order to determine what kinds of mineral and organic matter in manufacturers' refuse should be excluded from the water, and what materials might in the processes of precipitation, filtering or other method of clarifying be allowed to remain in the water. And it might be deemed advisable to ascertain what different methods of clarification would be needed to eliminate the harmful constituents from the wastes of different manufactories.

It will not fail to be understood that the object of the foregoing remarks is to show that full and more extended investigations, such as the General Assembly has inferentially requested the State Board of Health to make, cannot be thoroughly made without the employment of experts in the several lines of inquiry and by an appropriation of money therefor.

The General Court of Massachusetts in 1886, and again in 1887, appropriated \$30,000 each year for the Mass. State Board of Health for, in a considerable measure, the same investigations requested of the Rhode Island State Board by the General Assembly. The city government of Providence appropriated a large sum in 1883 for an investigation of the same waters.

Other States appropriate for different sanitary purposes under the supervision of the State Boards of Health various sums from \$30,000 to \$50,000, independent of the expenses of vital registration and a report thereon, and independent of the protection of domestic animals from infectious diseases.

The Secretary of this Board could perform a considerable part of such expert work as proposed by the General Assembly, if opportunity allowed. It should be known that more than the ordinary number of hours of daily labor are required of the executive officer of the R. I. State Board of Health. During every year he has been compelled, in order to fully perform the duties of his official position, to employ office assistance at his private expense. The protection of

the large property (about \$5,000,000) invested in neat cattle and horses from loss by fatal contagious diseases required attention on more than one-third of the days during the year 1886. The collection, compilation, analysis and report of and upon the vital statistics of the State required the careful and steady labor of months. The correspondence is large and the office conferences numerous and lengthy. Without proper office assistance, the Secretary can only supervise and direct the work of extra sanitary investigation, with the employment of experts. The need, therefore, of a special appropriation for the further investigation of the subject, proposed by the General assembly, will be apparent, if such further investigation be desired.

The Board, however, in view of such facts as are already known, and which they deem sufficiently conclusive, recommend the enactment of such laws as will assure the commencement forthwith of such measures (intercepting sewers in the city of Providence being an indispensable requisite) as will finally result in the purification of the waters of the streams aforesaid; and also of all other inland waters that are sources of sickness among the people.

It is hoped such laws may be enacted as under a conservative and judicious administration will not impose unnecessary burdens, or compel such immediate changes, as will result in serious inconveniences or great pecuniary loss to municipalities, manufacturing corporations or individuals, but that *immediate* steps *shall* be taken which will give assurance that the work of purification of the streams of water will be gradually accomplished.

And in furtherance of such object, an "Act for the protection of the waters of the State from pollution" is appended herewith.

Most respectfully submitted,

Attest:

C. H. FISHER, Sec.

[Signed by members of the Board.]

ADDITIONS TO THE LIBRARY.

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N. H. Transactions of State Med. Soc	1885
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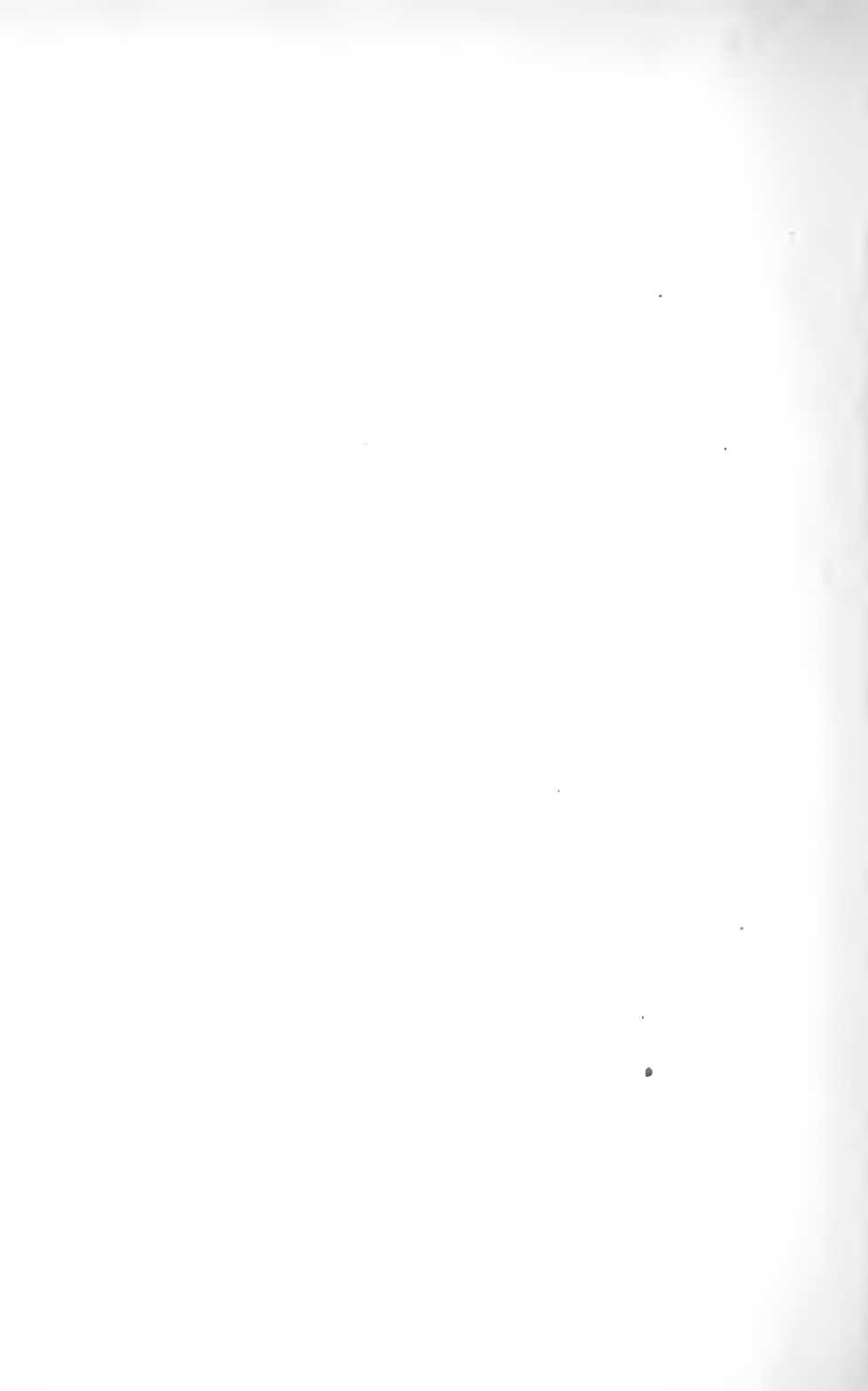
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THIRTY-FOURTH REPORT

UPON THE

Births, Marriages and Deaths,

IN THE

STATE OF RHODE ISLAND,

FOR THE

YEAR ENDING DECEMBER 31, 1886.

PREPARED BY

CHARLES H. FISHER, M. D.,

STATE REGISTRAR OF VITAL STATISTICS; SECRETARY OF THE STATE BOARD OF HEALTH.

PROVIDENCE:

E. L. FREEMAN & SON, STATE PRINTERS.

1887.

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State of Rhode Island and Providence Plantations.

OFFICE OF THE STATE REGISTRAR OF VITAL STATISTICS,

PROVIDENCE, December, 1887.

To the Honorable the General Assembly :

The Thirty-Fourth Annual Report upon the Births, Marriages and Deaths in Rhode Island is herewith respectfully submitted. The statistics presented are for the year ending December 31, 1886.

The general arrangement of the Tables, Summaries and Comments of the previous year, has been followed, with a few special changes, such as the facts at hand seemed to warrant.

The object has been to present the important facts of many years of registration, as well as of single years, in such manner as to make them readily apparent, and relieve the reader of the statistics, of much of the labor of personal examination of the general Tables, for the purpose of ascertaining the relation the various facts bear to each other.

In the preparation of Table XVIII, acknowledgments are due for indispensable material furnished, by Luigi Bodio, Director-General of Statistics of the Kingdom of Italy, (Movimento Dello Stato Civile), and by Sir Rawson W. Rawson, K. C. M. G., C. B., President of the International Statistical Institute and of the Statistical Society, London, Eng. (International Statistics : an Opening Address of the President).

The general results of vital registration, in 1886, are as follows :

BIRTHS.			
SEX.		PARENTAGE.	
Males.....	3,897	American.....	3,791
Females.....	3,724	Foreign.....	3,830
Whole number of births.....		7,621	

MARRIAGES.

American Groom and Bride.....	1,480
Foreign-born Groom and Bride.....	739
American Groom and Foreign Bride.....	290
Foreign Groom and American Bride.....	241
Whole number of marriages.....	2,750

DEATHS.

SEX.		PARENTAGE.
Males.....	2,833	American.....2,747
Females.....	3,016	Foreign.....3,102
Whole number of deaths.....		5,849

There was one birth to every 40.8 of the population, or.....24.5 births in every 1,000.

One person married in every 56.5 of the population, or.....17.7 persons married in every 1,000.

And one death in every 53.2 of the population, or.....18.8 deaths in every 1,000.

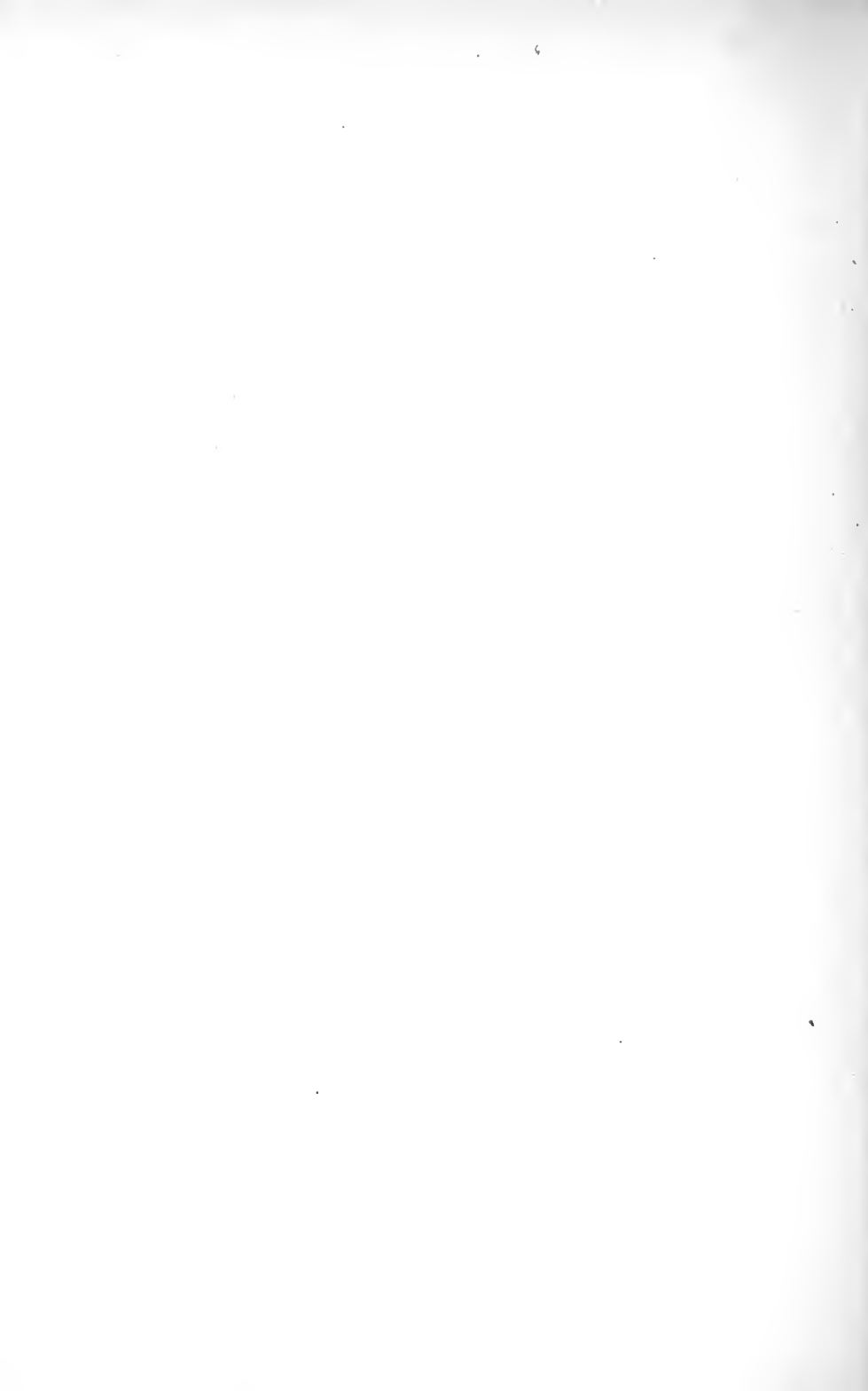
The following summary will show the rates, per 1,000 of the population, of births, marriages and deaths, for seven years :

	1880.	1881.	1882.	1883.	1884.	1885.	1886.
Birth rates.....	22.8	24.4	24.7	24.4	23.9	23.1	24.5
Death rates.....	17.5	18.1	18.3	18.1	17.1	17.7	18.8
Excess of Birth rates over Death rates.....	5.3	6.3	6.4	6.3	6.8	5.4	5.7
Marriage rates.....	20.0	19.8	19.1	18.5	17.2	16.3	17.7
	Per 1,000						
	of Population.						
Average Birth rate, 7 years	24.0						
Average Death rate, 7 years.....	17.9						
Average yearly excess of Births over Deaths, 7 years.....	6.1						
Average Marriage rate, 7 years	18.4						

With great respect,

CHAS. H. FISHER,

State Registrar.



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REPORT UPON THE REGISTRATION
OF
BIRTHS, MARRIAGES AND DEATHS
IN
RHODE ISLAND,
FOR THE
YEAR ENDING DECEMBER 31, 1886,
AND
FOR VARIOUS PERIODS FROM 1853 TO 1886 INCLUSIVE.

TABLE II.—BIRTHS, 1886.

Arranged by Months, Sexes, and Divisions of the State.

MONTHS.	SEX.	Whole State.	DIVISIONS OF THE STATE.						
			Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Providence City.	Washington County.
January....	Males....	295	14	15	6	25	98	115	22
	Females..	298	11	17	8	34	97	115	16
	Total....	593	25	32	14	59	195	230	38
February...	Males....	288	10	12	6	16	100	126	18
	Females..	267	6	18	8	26	100	98	11
	Total....	555	16	30	14	42	200	224	29
March	Males....	315	14	21	9	28	110	114	19
	Females..	300	9	24	14	24	90	125	14
	Total....	615	23	45	23	52	200	239	33
April	Males....	260	6	16	4	23	92	103	16
	Females..	265	9	20	5	19	97	95	20
	Total....	525	15	36	9	42	189	198	36
May	Males....	286	8	10	7	23	102	118	18
	Females..	283	12	21	7	19	94	117	13
	Total....	569	20	31	14	42	196	235	31
June	Males....	345	8	24	8	22	113	154	16
	Females..	310	13	25	3	22	118	119	10
	Total....	655	21	49	11	44	231	273	26
July	Males....	334	10	26	4	27	117	127	23
	Females..	339	11	28	7	26	124	122	21
	Total....	673	21	54	11	53	241	249	44

TABLE II.—BIRTHS, 1886.—Continued.

MONTHS.	SEX.	Whole State.	DIVISIONS OF THE STATE.						
			Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Providence City.	Washington County.
August.	Males.	391	12	16	7	33	121	177	25
	Females. . .	350	9	21	10	25	126	142	17
	Total.	741	21	37	17	58	247	319	42
September. .	Males.	313	16	18	6	22	125	109	17
	Females. . .	314	7	20	4	23	111	127	22
	Total.	627	23	38	10	45	236	236	39
October.	Males.	345	12	20	8	28	124	131	22
	Females. . .	341	8	26	4	23	119	137	24
	Total.	686	20	46	12	51	243	268	46
November. .	Males.	372	14	21	11	31	138	127	30
	Females. . .	310	10	26	4	23	115	114	18
	Total.	682	24	47	15	54	253	241	48
December. .	Males.	353	8	28	9	25	142	115	26
	Females. . .	347	5	32	7	33	116	133	21
	Total. . .	700	13	60	16	58	258	248	47
Whole Year.	Males.	3,897	132	227	85	303	1,382	1,516	252
	Females. . .	3,724	110	278	81	297	1,307	1,444	207
	Total.	7,621	242	505	166	600	2,689	2,960	459

TABLE III.—PLURALITY BIRTHS, 1886.
ARRANGED BY MONTHS, SEXES, AND DIVISIONS OF THE STATE, AND SHOWING THE NATIVITY OF THE PARENTS.

MONTHS.	Number of Cases.	SEX.	Number of Children.	DIVISIONS OF THE STATE.						NATIVITY OF THE PARENTS.																					
				Bristol County.	Kent County.	Newport County.	Newport City.	Providence Co.	Providence City.	Washington Co.	American.	English.	French.	German.	Irish.	Norwegian.	Scotch.	Swedish.	Western Islands.	American Father.	English Mother.	American Father.	Irish Mother.	Scotch Mother.	English Father.	Amer. Mother.	Irish Father.	English Mother.	Scotch Mother.	French Father.	Amer. Mother.
January	9	Males . . . 6 Females . 12	18	..	..	1	3	4	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
February	9	Males . . . 7 Females . 11	18	..	..	1	2	6	..	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
March	6	Males . . . 5 Females . 7	12	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
April	5	Males . . . 2 Females . 8	10	1	..	..	2	2	..	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
May	5	Males . . . 6 Females . 5	11	..	..	1	2	2	..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
June	8	Males . . . 4 Females . 12	16	..	..	..	3	5	..	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
July	8	Males . . . 10 Females . 6	16	1	..	..	3	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
August	12	Males . . . 13 Females . 11	24	..	1	..	4	6	1	8	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
September	9	Males . . . 9 Females . 9	18	..	..	3	3	3	..	3	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
October	9	Males . . . 11 Females . 7	18	..	..	..	5	4	..	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
November	8	Males . . . 12 Females . 4	16	1	1	1	1	5	..	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
December	7	Males . . . 4 Females . 10	14	..	..	2	2	3	..	4	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Whole Year	95	Males . . . 89 Females . 102	191	4	3	10	31	44	3	35	6	7	2	17	1	1	1	2	3	2	1	6	1	2	2	3	1	1	1	1	1

One case of triplets, in May.

TABLE IV.—MARRIAGES, 1886.

Arranged by Months and Divisions of the State.

MONTHS.	Whole State, 1886.	DIVISIONS OF THE STATE.							Whole State, 1885.
		Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Providence City.	Washington County.	
January	202	5	14	4	13	58	99	9	207
February	202	3	17	6	14	72	82	8	165
March	190	4	12	4	6	53	91	20	122
First Quarter . . .	594	12	43	14	33	183	272	37	494
April	185	5	16	3	15	69	67	10	225
May	230	11	18	1	7	80	99	14	172
June	253	7	14	2	12	74	125	19	209
Second Quarter . .	668	23	48	6	34	223	291	43	606
July	202	12	5	1	8	71	92	13	153
August	213	6	14	5	10	67	99	12	187
September	281	8	17	5	11	94	128	18	236
Third Quarter . . .	696	26	36	11	29	232	319	43	576
October	276	9	19	4	12	69	143	20	285
November	317	2	30	8	20	94	135	28	299
December	199	7	11	8	6	59	89	19	228
Fourth Quarter . .	792	18	60	20	38	222	367	67	812
Whole Year	2,750	79	187	51	134	860	1,249	190	2,488

TABLE V.—AGES OF PERSONS MARRIED, 1886.

AGES OF GROOMS.	AGES OF BRIDES.													Number of Grooms.
	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	Not Stated.	
Under 20.....	46	20	3	....	....	....	....	....	....	....	....	....	....	69
20 to 25.....	266	574	115	8	4	....	....	....	....	....	....	....	....	967
25 to 30.....	105	412	302	43	11	4	1	....	....	....	....	....	....	878
30 to 35.....	13	110	139	78	12	2	1	..	1	..	....	....	....	356
35 to 40.....	5	33	56	52	24	11	2	1	..	....	....	....	....	184
40 to 45.....	....	10	32	40	23	12	1	....	....	....	....	....	....	118
45 to 50.....	1	3	14	15	15	10	9	2	..	....	....	....	....	69
50 to 55.....	....	2	7	7	5	10	9	11	1	..	....	....	....	52
55 to 60.....	....	....	2	4	1	7	1	1	..	2	..	....	....	18
60 to 65.....	....	....	3	....	3	..	4	1	2	3	..	....	....	16
65 to 70.....	....	2	1	....	1	..	5	1	1	5	1	..	....	17
70 to 75.....	....	....	....	....	....	....	1	3	1	....	....	....	....	5
75 to 80.....	....	....	....	....	....	....	..	1	..	....	....	....	....	1
Not Stated.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Number of Brides	436	1166	674	247	99	56	34	21	6	10	1	..	....	2750

TABLE VI.—DEATHS, 1886.

Arranged by Months, Sexes and Divisions of the State.

MONTHS.	SEX.	Whole State.	DIVISIONS OF THE STATE.						
			Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Providence City.	Washington County.
January	Males	237	9	14	5	10	95	92	12
	Females . .	251	10	22	7	22	82	93	15
	Total	488	19	36	12	32	177	185	27
February	Males	195	10	8	4	16	78	77	2
	Females . .	215	8	13	4	18	63	97	12
	Total	410	18	21	8	34	141	174	14
March	Males	240	11	15	11	11	90	89	13
	Females . .	275	17	8	8	18	88	126	10
	Total	515	28	23	19	29	178	215	23
April	Males	214	5	10	3	12	82	85	17
	Females . .	246	6	17	7	12	81	105	18
	Total	460	11	27	10	24	163	190	35
May	Males	210	6	13	4	12	79	85	11
	Females . .	210	5	15	5	7	84	81	13
	Total	420	11	28	9	19	163	166	24
June	Males	209	6	15	6	4	89	81	8
	Females . .	208	11	14	5	9	77	84	8
	Total	417	17	29	11	13	166	165	16
July	Males	287	9	24	9	12	109	109	15
	Females . .	302	8	17	4	17	133	113	10
	Total	589	17	41	13	29	242	222	25
August	Males	323	14	12	4	13	120	134	26
	Females . .	321	15	15	12	21	113	134	11
	Total	644	29	27	16	34	233	268	37
September . . .	Males	245	9	18	4	10	84	104	16
	Females . .	267	9	24	5	9	100	104	16
	Total	512	18	42	9	19	184	208	32
October	Males	252	13	17	3	16	90	102	11
	Females . .	260	7	25	3	12	74	115	24
	Total	512	20	42	6	28	164	217	35
November . . .	Males	195	7	23	2	14	69	66	14
	Females . .	233	13	15	1	9	86	90	19
	Total	428	20	38	3	23	155	156	33
December . . .	Males	226	6	19	5	12	79	85	20
	Females . .	228	9	14	8	13	66	102	16
	Total	454	15	33	13	25	145	187	36
Whole Year . .	Males	2,833	105	188	60	142	1,064	1,109	165
	Females . .	3,016	118	199	69	167	1,047	1,244	172
	Total	5,849	223	387	129	309	2,111	2,353	337

TABLE VII.—DEATHS, 1886.

Exhibiting the Whole Number, the Proportion to Population, the Number of each Sex, and the Number in each Period of Life, in every Town and Division of the State.

TOWNS. AND DIVISIONS OF THE STATE.	Population, 1886.*	DEATHS.				Under 1 year.	1 and under 2.
		Whole Number.	Per 1000 of Population.	SEX.	Number of each Sex.		
Barrington.....	1,394	29	20.1	Males.....	15	3	2
				Females...	14	2	....
Bristol.....	6,000	116	19.3	Males.....	55	15	4
				Females...	61	3	3
Warren.....	4,209	78	18.5	Males.....	35	6	1
				Females...	43	8	....
BRISTOL COUNTY..	11,603	223	19.2	Males.....	105	24	7
				Females...	118	13	3
Coventry.....	5,000	76	15.2	Males.....	35	2	....
				Females...	41	6	1
East Greenwich...	2,800	49	17.5	Males.....	18	4	....
				Females...	31	5	1
West Greenwich...	850	14	16.5	Males.....	5	....	...
				Females...	9	1	1
Warwick.....	13,508	248	18.4	Males.....	130	29	6
				Females...	118	26	6
KENT COUNTY....	22,158	387	17.5	Males.....	188	35	6
				Females...	199	38	9
Jamestown.....	520	4	7.7	Males.....	1	....	....
				Females...	3	....	...
Little Compton...	1,052	22	20.9	Males.....	10	1	...
				Females...	12	....	....
Middletown.....	1,175	21	17.9	Males.....	8	1	...
				Females...	13	3	....
New Shoreham...	1,275	16	12.6	Males.....	6	..	....
				Females...	10	3	....
Portsmouth.....	2,000	25	12.5	Males.....	16	....	....
				Females...	9	2	....
Tiverton.....	2,725	41	15.0	Males.....	19	1	2
				Females...	22	4	3
TOWNS, NEWP'T Co	8,747	129	14.7	Males.....	60	3	2
				Females...	69	12	3
NEWPORT CITY...	20,466	309	15.1	Males.....	142	22	4
				Females...	167	29	2

* Estimated by the municipal authorities of each. † Census of 1885.

TABLE VII.—DEATHS, 1886.—Continued.

2 and under 3.	3 and under 5.	5 and under 10.	10 and under 15.	15 and under 20.	20 and under 30.	30 and under 40.	40 and under 50.	50 and under 60.	60 and under 70.	70 and under 80.	80 and under 90.	90 and over.	Age not stated.
1	1	...	...	1	...	1	1	3	...	3	1	...	...
...	...	2	...	...	...	...	1	2	2	4	...	1	...
...	3	3	1	...	1	2	2	9	8	4	2	...	1
1	1	3	6	4	6	3	8	4	6	8	1	3	1
...	1	1	1	...	1	3	1	3	7	6	4	...	...
2	1	2	...	1	3	3	4	5	5	4	5	...	...
...	5	4	2	...	2	6	4	15	15	13	7	...	1
3	2	7	6	5	9	6	13	11	13	16	6	4	1
...
2	...	...	...	3	1	3	2	1	5	10	4	...	2
3	1	1	...	...	4	1	3	4	5	8	3	1	...
...	4	1	...	...	...	2	2	...	2	2	1	...	...
...	...	1	4	...	1	2	1	1	9	2	3	1	...
...	...	...	...	...	...	1	...	...	...	3	1	...	...
...	...	...	...	...	...	1	1	2	2	...	...	1	...
7	11	9	1	2	11	7	6	11	11	14	3	2	...
5	10	7	2	5	8	5	8	4	10	13	5	3	1
9	15	10	1	5	12	13	10	12	18	29	9	2	2
8	11	9	6	5	13	9	13	11	26	23	11	6	1
...	...	...	...	...	...	...	...	...	1	...	...	...	...
...	...	...	...	...	1	...	...	1	...	1	...	...	...
...	...	...	1	1	...	2	...	2	...	2	1	...	...
...	1	...	...	1	1	...	1	1	2	1	3	1	...
...	...	1	1	2	2	...	...	...	...	1	...	...	...
...	...	1	1	...	1	...	1	1	...	2	1	2	...
...	...	1	...	...	...	...	...	2	1	1	1	1	...
...	...	...	...	...	2	1	...	1	1	...	2	...	...
...	...	...	...	...	...	1	2	1	1	5	5	1	...
...	...	...	...	...	...	...	1	1	1	2	1	1	...
2	3	...	...	2	1	1	...	1	...	4	2	...	...
1	...	...	...	...	3	1	3	1	1	2	2	1	...
2	3	2	2	5	3	4	2	4	4	13	9	2	...
1	1	1	1	1	8	2	6	6	5	8	9	5	...
...
4	5	7	2	10	8	14	10	15	15	15	10	...	1
8	3	8	4	8	17	14	8	10	15	25	15	1	...

TOWNS AND DIVISIONS OF THE STATE.	Population, 1886.*	DEATHS.				Under 1 year.	1 and under 2.
		Whole Number.	Per 1000 of Population.	SEX.	Number of each Sex.		
Burrillville.....	5,400	70	13.0	Males.....	41	8	2
				Females...	29	9	2
Cranston.....	†4,800	88	18.3	Males.....	52	8	5
				Females...	31	5	1
Cumberland.....	†7,163	189	26.3	Males.....	80	16	4
				Females...	109	24	10
East Providence..	†6,816	99	14.5	Males.....	56	13	4
				Females...	43	15	2
Foster.....	1,390	24	17.3	Males.....	16	1	....
				Females...	8	1	....
Glocester.....	2,100	36	17.1	Males.....	19	4	1
				Females...	17	1	....
Johnston.....	7,500	128	17.1	Males.....	63	20	1
				Females...	65	13	3
Lincoln.....	18,000	416	23.1	Males.....	206	72	11
				Females...	210	56	17
North Providence.	1,550	17	11.0	Males.....	8	....	1
				Females...	9	....	2
North Smithfield..	3,160	35	11.1	Males.....	15	1	3
				Females...	20	2	....
Pawtucket.....	24,800	470	19.0	Males.....	225	60	11
				Females...	245	50	10
Scituate.....	3,600	62	17.2	Males.....	37	8	1
				Females...	25	1	....
Smithfield.....	2,500	22	9.0	Males.....	9	4	1
				Females...	13	1	....
Woonsocket.....	19,000	372	19.0	Males.....	188	57	19
				Females...	184	54	11
TOWNS, PROV. CO.	107,779	†2,023	18.8	Males.....	1,015	272	64
				Females...	1,008	232	58
PROVIDENCE CITY.	120,000	2,353	19.6	Males.....	1,109	221	69
				Females...	1,244	217	79
Charlestown.....	1,050	9	8.6	Males.....	3	....	....
				Females...	6	....	....
Exeter.....	1,050	17	16.2	Males.....	9	2	....
				Females...	8	3	....
Hopkinton.....	2,767	50	18.1	Males.....	23	1	....
				Females...	27	4	1
N. Kingstown....	3,870	48	12.4	Males.....	29	4	....
				Females...	19	2	1
S. Kingstown....	5,600	78	13.9	Males.....	37	10	1
				Females...	41	6	2
Richmond.....	1,800	30	16.6	Males.....	15	2	...
				Females...	15	1	2
Westerly.....	6,500	105	16.2	Males.....	49	7	4
				Females...	56	6	....
WASHINGTON CO..	22,637	337	15.0	Males.....	165	26	5
				Females...	172	22	6
State Ins. Cranston	1,300	88	67.7	Males.....	49	2	....
				Females...	39	....	....

* By estimation of the municipal authorities of each. † By census of 1885, no estimate by town authorities. ‡ Not including State Institutions.

TABLE VII.—DEATHS, 1886.—Continued.

2 and under 3.	3 and under 5.	5 and under 10.	10 and under 15.	15 and under 20.	20 and under 30.	30 and under 40.	40 and under 50.	50 and under 60.	60 and under 70.	70 and under 80.	80 and under 90.	90 and over.	Age not stated.
3	1	1	...	1	4	4	2	4	7	3	1	...	...
1	...	...	1	1	5	1	1	...	1	6	1	...	...
1	2	...	2	2	1	4	3	7	6	7	4	...	...
1	1	...	...	...	4	...	2	3	7	4	3	...	...
2	1	8	2	3	8	8	6	5	7	7	3	...	...
2	2	2	1	6	9	12	6	9	6	14	3	3	...
...	2	3	2	1	5	2	5	8	8	2	1	...	...
1	...	1	...	2	3	1	1	4	4	5	3	1	...
...	...	...	...	1	...	1	...	3	1	7	1	1	...
...	...	...	...	...	...	2	1	...	...	...	3	1	...
...	...	...	1	...	...	...	1	1	3	2	4	2	...
...	...	1	...	1	1	1	...	2	2	4	2	1	1
...	2	3	2	1	2	...	7	4	11	6	2	1	1
2	2	4	...	3	9	2	5	1	9	7	3	1	1
7	9	10	4	6	16	8	10	13	13	19	5	1	2
10	15	6	6	10	25	19	8	14	11	6	5	1	1
...	...	1	1	...	2	...	1	1	...	...	1	...	...
...	...	...	1	...	1	...	2	...	1	1	1	...	...
...	3	1	1	1	...	2	...	...	3	...	...	...	...
...	2	3	...	2	3	1	...	...	4	1	2	...	...
10	4	15	5	4	15	13	14	16	22	22	10	2	2
18	4	12	6	12	16	16	15	26	20	32	16	2	...
...	1	1	...	1	2	...	2	1	5	11	4	...	...
...	...	1	...	...	1	1	3	3	4	8	3	...	...
...	1	...	...	...	...	1	2	...	...	...	...	...	...
...	...	1	...	1	1	1	4	1	1	1	...	1	...
10	5	6	3	5	26	10	15	6	10	10	5	1	...
5	6	6	5	12	24	14	10	10	6	11	10	...	...
33	31	49	23	26	81	53	68	69	96	96	41	8	5
40	32	37	20	49	102	71	58	73	76	100	55	11	3
24	42	64	20	39	100	100	104	99	100	96	27	4	...
38	54	31	20	41	123	114	97	110	108	126	74	12	...
...	1	...	...	...	...	...	...	...	1	1	...	...	...
...	...	1	...	1	...	...	...	1	...	1	2	...	...
...	...	...	...	...	...	1	1	...	2	1	2	...	...
...	...	...	...	...	1	...	1	...	...	2	1	...	...
1	...	...	...	3	1	2	1	3	3	4	4	...	...
...	...	...	...	...	1	3	...	4	4	3	4	3	...
...	...	1	...	2	2	...	...	7	5	4	3	1	...
...	1	...	...	1	1	...	4	1	...	5	2	...	1
...	...	1	...	2	1	1	2	4	4	7	3	...	1
...	1	...	1	2	3	3	3	2	6	6	4	2	...
...	...	...	...	2	1	...	1	1	1	4	3	...	...
...	...	...	1	...	1	3	1	...	2	2	2	...	...
1	1	3	1	...	7	3	5	3	7	4	3	...	...
1	2	...	1	5	8	5	5	7	6	6	4	...	...
2	2	5	1	9	12	7	10	18	23	25	18	1	1
1	4	1	3	9	15	14	14	15	18	25	19	5	1
...	...	...	...	...	4	9	7	9	3	8	3	...	4
...	...	1	1	...	1	7	12	2	7	5	2	...	1

TABLE VII Continued.—DEATHS, 1886, RECAPITULATION.

DIVISIONS OF THE STATE.	Population, 1886.	DEATHS.				Under one year.	1 and under 2.
		Whole Number.	Per 1000 of Pop- ulation.	SEX.	Number of each Sex.		
BRISTOL COUNTY..	*11,603	223	19.2	Males.....	105	24	7
				Females...	118	13	3
KENT COUNTY....	*22,158	387	17.5	Males.....	188	35	6
				Females...	199	38	9
NEWPORT COUNTY.	*29,213	438	15.0	Males.....	202	25	6
				Females...	236	41	5
PROVIDENCE Co..	*227,779	4,376	19.2	Males.....	2,124	493	133
				Females...	2,252	449	131
WASHINGTON Co..	*22,637	337	15.0	Males.....	165	26	5
				Females...	172	22	6
STATE INST'S.....	1,300	88	67.7	Males.....	49	2	....
				Females...	39	....	....
WHOLE STATE....	†310,857	5,849	18.8	Males.....	2,833	605	157
				Females...	3,016	563	154

* Estimated by municipal authorities.

† Estimated by State Registrar.

TABLE VII Continued.—DEATHS, 1886, RECAPITULATION.

2 and under 3.	3 and under 5.	5 and under 10.	10 and under 15.	15 and under 20.	20 and under 30.	30 and under 40.	40 and under 50.	50 and under 60.	60 and under 70.	70 and under 80.	80 and under 90.	90 and over.	Age not stated.
....	5	4	2	....	2	6	4	15	15	13	7	....	1
3	2	7	6	5	9	6	13	11	13	16	6	4	1
9	15	10	1	5	12	13	10	12	18	29	9	2	2
8	11	9	6	5	13	9	13	11	26	23	11	6	1
6	8	9	4	15	11	18	12	19	19	28	19	2	1
9	4	9	5	9	25	16	14	16	20	33	24	6	1
57	73	113	43	65	181	153	172	168	196	192	68	12	5
78	86	68	40	90	225	185	155	183	184	226	129	23	....
2	2	5	1	9	12	7	10	18	23	25	18	1	1
1	4	1	3	9	15	14	14	15	18	25	19	5	1
....	....	....	....	....	4	9	7	9	3	8	3	....	4
....	....	1	1	....	1	7	12	2	7	5	2	....	1
74	103	141	51	94	222	206	215	241	274	295	224	17	14
99	107	95	61	118	288	237	221	238	268	328	291	44	4

TABLE VIII.—CAUSES OF DEATH, 1886.

Arranged Alphabetically; showing the Number of each Sex, who died from each cause, in each month and in the whole year 1886; also the number of American and of Foreign Parentage, from each cause, for the year.

CAUSES OF DEATH.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	PARENTAGE.			SEX.					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Am.	For.	M.	F.	Total.		
Accidents, various.....	3	1	3	5	2	1	5	4	1	3	1	5	6	1	4	1	3	2	54		
“ Asphyxia.....	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9		
“ Burns and Scalds..	2	2	1	4	2	1	2	1	1	2	1	2	1	2	1	2	1	1	23		
“ Drowning.....	5	5	1	3	2	6	1	4	8	1	4	6	2	1	1	2	1	1	58		
“ Falls.....	2	2	1	2	3	2	1	3	1	1	1	1	1	1	1	1	2	19			
“ Poisoning.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6			
“ Railroad.....	1	1	3	1	1	2	3	1	1	1	2	1	1	1	2	1	1	20			
Abscesses, various.....	1	1	1	2	1	1	2	1	1	2	1	1	1	1	2	1	1	13			
“ Lumbar.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	3			
Abortion.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2			
Addisons Disease.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Alcoholism.....	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	8	6	3			
Anæmia.....	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	7	8	15			
Anasarca.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2			
Aneurism, Abdominal..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
“ of Aorta.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Angina Pectoris.....	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	5	7	9			
Apoplexy.....	13	11	8	6	12	7	6	12	9	14	7	11	14	9	5	17	12	7	8	6	6
Arteries, Atheroma of..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ascites.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Asthénia.....	1	1	2	1	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7

CAUSES OF DEATH.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	PARENTAGE.			SEX.	
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	Am.	For.	M.	F.	Total.
Asthma.....	1	1	1			1	1	2	1	1	2		1	12	5	8	13
Ataxia Locomotor.....													....	1	1	....	1
Atelectasis Pulmonum.....	1		1											1	1	....	2
Atrophy.....														1	1	1	2
Bladder, Disease of.....	1			1				1						1	2	1	2
“ Inflammation of.....	1	2				1	1		1				5	....	6	....	6
Bones, Disease of.....				1				1	1	1	1		2	4	3	3	6
Bowels, Disease of.....	1							1	1				2	2	2	2	4
“ Inflammation of.....		1	1					1					3	4	3	4	7
“ Perforation of.....										2			1	....	....	1	1
Brain, Disease of.....			2	3	2	2	1	6	3	2	2	3	1	27	30	14	44
“ Congestion of.....	1	1	1	1	1	3	1	1			1	1	17	6	14	9	23
“ Softening of.....	1	1	2		2		1				1		5	5	6	4	10
“ Inflammation of.....	1	1					1						7	5	6	6	12
Bronchitis, Acute.....	10	7	4	11	12	7	15	3	4	5	7	2	5	65	64	79	143
“ Chronic.....	6	1	1	2	2	1	1	2	1		3		16	15	11	20	31
Cancer, various.....	2	8	1	4	7	2	1	4	1	5	2	3	1	22	44	21	66
“ Abdominal.....			1				1						2	2	2	2	4
“ of Breast.....			2					1					2	7	2	14	14
“ of Liver.....	1	3	2	1		1	1	2	1	1	1		10	8	7	11	18
“ Omentum.....		1											2	....	....	2	2
“ of Rectum.....			1										1	....	1	....	1
“ of Stomach.....	5	2	1		1	3	1	3	2	1	2	1	18	12	10	20	30
“ of Uterus.....	2	1	3		3		1	2	3	2	1	4	12	10	....	22	22
Carbuncle.....	1			1									1	1	1	1	2
Cellulitis Pelvic.....								1					1	....	....	1	1

CAUSES OF DEATH.	PARENTAGE.												SEX.	
	Am.						For.						M.	F.
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.		
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	Total.
Liver, Inflammation of.....	1	...	...	...	1	...	...	...	...	...	...	...	3	...
Locomotor Ataxia.....	...	...	...	...	1	...	...	...	...	...	...	...	4	...
Lungs, Disease of.....	...	1	...	...	1	...	1	...	1	...	...	...	1	...
“ Edema of.....	...	...	1	1	...	...	...	...	1	...	...	...	1	...
Malformations.....	1	...	2	...	...	...	2	2	1	1	...	...	8	...
Malnutrition.....	...	...	1	1	1	1	...	...	1	...	1	...	6	...
Marasmus.....	5	1	3	1	1	1	5	3	5	8	4	2	33	...
“ Senile.....	1	...	1	...	...	...	...	...	...	...	...	...	2	...
Measles.....	1	2	1	2	...	...	2	...	...	...	...	...	11	...
Meningitis.....	4	5	8	3	6	3	2	6	2	3	4	2	35	...
“ Spinal.....	...	1	...	1	1	...	1	...	1	1	...	...	3	...
“ Cerebro Spinal.....	...	1	1	1	1	...	1	1	1	2	...	...	7	...
“ Tubercular.....	1	2	1	2	1	1	2	1	2	1	3	2	12	...
Myelitis.....	...	...	...	...	...	...	...	1	...	...	...	...	1	...
Murder.....	...	...	...	...	...	...	...	1	...	...	...	...	2	...
Nephritis.....	1	1	2	3	...	1	3	1	3	1	2	4	23	...
Neuralgia.....	...	...	1	1	...	1	...	1	...	...	...	...	4	...
Nervous Prostration.....	...	1	...	2	...	...	...	...	1	...	...	...	2	...
Obstipation.....	...	...	...	...	...	...	...	...	1	...	...	...	2	...
Old Age.....	11	10	11	18	11	21	7	16	9	12	9	8	103	...
Paralysis.....	4	5	1	3	6	2	3	7	4	6	5	4	181	...
Paraplegia.....	...	...	...	...	1	...	...	1	...	...	...	...	65	...
Peritonitis.....	1	4	2	3	3	2	...	1	5	1	2	2	1	...
Phlebitis.....	...	...	...	...	...	...	...	...	1	...	...	...	19	...
Pleurisy.....	2	...	1	...	...	...	...	...	1	...	...	...	1	...
Pneumonia.....	23	30	22	26	32	37	34	23	28	24	8	13	210	...

CAUSES OF DEATH.		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	PARENTAGE.		SEX.			
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	
															Am.	For.			
Tabes Mesenterica.	2	1	2	1	1	3	1	1	4	3	3	1	1	1	11	8	14	5	19
Teething.							1	1	1	1	3	3	2	1	12	14	11	15	26
Tetanus.			1	1			1	3			1		1		2	6	6	2	8
Thrombosis.		1										1			2	...	1	1	2
Thrush.												1			1	1	2		2
Tuberculosis.	3	2	1	1	1	2	1	4	1	2	4	3	2	3	20	21	19	22	41
Tumors.				2	1	1	1	1	2	1	1	1	2		10	5	5	10	15
“ of Abdomen.			1						2						1	2	...	3	3
“ of Brain.													1	1	2	...	1	1	2
“ of Liver.	1		1	1	1	1	1	1	1	1	1	4			...	9	5	4	9
“ Ovarian.		1		1	1	1	1	2	1	1	1	1			7	1	...	8	8
“ of Stomach.								1							...	1	...	1	1
“ of Uterus.						1	1	1							...	3	...	3	3
Ulcers.		1					1	1		1	1	1			1	5	2	4	6
Uremia.			1	1			1				1	1	2		5	2	6	1	7
Urethra, Stricture of.															1	...	1	...	1
Uterus, Disease of.	1														1	...	...	1	1
Vomiting.	1											1			1	2	1	2	3
Whooping Cough.	2	5	3	3	1	2	1	2	5	2	3	3	1	1	17	32	28	21	49
Unknown.	2	3	3	1	1	2	2	3	2	3	2	3	1	6	23	28	29	22	51

CAUSES OF DEATH.																																				
Under 1.		1 and under 2.		2 to 3.		3 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 and over.		Age not stated.		SEX.				
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.		
Asthma.....																	1	1		2	3	1	3	1	1							5	8	13		
Ataxia Locomotor.....																	1																1	...	1	
Atelectasis Pulmonum.....		2																															...	2	2	2
Atrophy.....																			1														1	1	2	
Bladder, Disease of.....																																	2	...	2	2
“ Inflammation of....																																	6	...	6	6
Bones, Disease of.....												1	1						1	1													3	3	6	
Bowels, Disease of.....																																	2	2	4	
“ Inflammation of....		1																															3	4	7	
“ Perforation of.....																																	...	1	1	1
Brain, Disease of.....		8	4	4														1	5		3	1	2	2	2	2	2	2	2	2	2	30	14	44		
“ Congestion of.....		3	1	2		1	2	1	2	1		1																					14	9	23	
“ Softening of.....																																	6	4	10	
“ Inflammation of.....		2	1	1	1	1	1	2																									6	6	12	
Bronchitis, Acute.....		20	28	8	11	4	9	2	3	3	2			1	1	3	1	2	1	1	5	9	7	9	6	1	3	1	2			64	79	143		
“ Chronic.....																																	11	20	31	
Cancer, various.....																																	21	45	66	
“ Abdominal.....																																	2	2	4	
“ of Breast.....																																	...	14	14	
“ of Liver.....																																	7	11	18	
“ Omentum.....																																	...	2	2	2
“ of Rectum.....																																	...	1	...	1
“ of Stomach.....																																	10	20	30	
“ of Uterus.....																																	...	22	22	22
Carbuncle.....																																	1	1	2	

CAUSES OF DEATH.	Under 1.		1 and under 2.		2 to 3.		3 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 and over.		Age not stated.		SEX.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Liver, Cirrhosis of.....	1	4	1	3	..	2	..	3	..	2	14	2	16	
“ Hypertrophy of.....	1	2	..	1	1	4	5	
“ Inflammation of.....	1	1	1	3	...	3		
Locomotor Ataxia.....	1	2	..	1	4	...	4		
Lungs, Disease of.....	1	1	1	1	1	1	2	3		
“ Edema of.....	1	1	1	1	2	3		
Malformations.....	8	7	8	7	15			
Malnutrition.....	6	6	..	6			
Marasmus.....	30	21	3	2	1	2	1	3	1	38	27	65			
“ Senile.....	1	1	2	2	4		
Measles.....	5	3	3	3	1	..	1	1	1	1	11	7	18			
Meningitis.....	16	9	7	6	5	3	1	10	5	2	2	1	2	1	1	..	1	..	1	3	2	1	1	1	49	37	86			
“ Spinal.....	1	1	..	1	..	1	..	..	1	..	1	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	3	4	7
“ Cerebro Spinal.....	1	1	1	..	3	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	4	10
“ Tubercular.....	4	5	6	1	1	2	..	4	2	1	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	15	29
Myelitis.....	1	1	1	1			
Murder.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	1	1	2
Nephritis.....	2	..	1	1	..	1	..	1	..	1	..	1	4	3	7	1	3	2	5	3	2	1	1	..	..	..	..	..	..	20	22	42
Neuralgia.....	1	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4
Nervous Prostration.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	..	..	..	..	..	..	..	..	2	2	4
Obstipation.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	1	2	..	..	..	..	..	..	..	2	3	5
Old Age.....	1	1	1	1	32	50	58	89	13	33	103	173	276			
Paralysis.....	..	..	..	..	1	..	..	..	..	..	1	1	1	1	1	5	3	7	6	11	5	12	20	8	10	..	1	1	..	47	48	95
Paraplegia.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	2	...	2
Peritonitis.....	1	2	1	1	..	..	..	1	..	1	6	4	4	6	1	10	3	3	2	4	..	3	2	3	1	..	..	..	..	22	37	59

[illegible]

1	...	...	1	4	10	...	16	Dietic.....	.28	.....	.42	.19	.32	.....	.45
...	...	...	...	1	...	1	2	Parasitic.....	.03	.28	.....	.05	.....	.....	.....
CLASS II.															
14	18	5	14	88	103	21	263	Diathetic.....	4.44	6.19	4.38	4.15	4.52	3.87	6.30
32	46	16	44	322	445	60	965	Tubercular.....	16.48	17.85	18.91	15.25	14.24	12.40	14.40
CLASS III.															
23	47	19	42	246	283	48	708	Dis. of Nervous System.....	12.02	14.26	12.03	11.75	13.86	14.74	10.30
14	24	4	20	99	163	33	363	Dis. of Circulatory System....	6.23	9.80	7.18	4.43	6.47	3.13	6.30
21	37	17	30	250	309	29	693	Dis. of Respiratory Organs....	11.88	8.62	13.14	11.94	9.60	13.18	9.45
17	15	6	14	90	144	10	296	Dis. of Digestive Organs.....	5.09	2.97	6.06	4.33	4.52	4.62	7.65
6	13	11	23	54	95	17	219	Dis. of Urinary Organs.....	3.76	5.05	4.04	2.55	7.31	8.53	2.75
...	...	...	...	5	4	...	9	Dis. of Reproductive Organs....	.15	.....	.17	.24	.....	.....	.....
...	...	...	...	6	18	4	33	Dis. of Os. and Locomo. System	.57	1.18	.77	.28	1.62	.....	.....
1	2	...	2	3	15	2	25	Dis. of Integument. System....	.44	.59	.64	.14	.64	.....	.45
CLASS IV.															
9	16	7	11	166	71	13	293	Develop. Dis. of Children.....	5.04	3.84	3.02	7.86	3.56	5.43	4.05
...	4	1	3	15	17	1	41	Develop. Dis. of Women.....	.74	.30	.73	.72	.97	.77	.....
16	24	15	21	100	73	27	276	Develop. Dis. of Old Age.....	4.75	8.02	3.09	4.73	6.78	11.64	7.10
1	5	1	10	38	12	4	71	Develop. Dis. of Nutrition....	1.13	1.17	.51	1.80	3.24	.77	.45
CLASS V.															
16	11	7	9	62	72	13	190	Accident and Neglect.....	3.27	3.84	3.06	2.94	2.94	5.43	7.10
...	...	...	...	...	2	...	2	Homicide.....	.03	.....	.08	.....	.....	.....	.....
1	3	1	1	4	7	...	17	Suicide.....	.30	.....	.29	.19	.32	.77	.45
4	4	2	5	24	11	1	51	Unclassified ..	.87	.30	.47	1.14	1.62	1.55	1.70
2	2	1	4	24	12	6	51	Not Specified.....	.87	1.86	.51	1.14	1.28	.77	.85

TABLE X.—CLASSIFICATION AND PERCENTAGE, 1886.—Continued.

NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.							PERCENTAGE OF DEATHS IN EACH DIVISION.					
Bristol County.	Kent County.	Newport County Towns.	Newport City.	Providence County Towns.	Providence City.	Washington County.	Percentage in the Whole State.	CAUSES OF DEATH.				
								CLASS I.—ZYMOTIC.				
								<i>Order One.—Miasmatic Dis.</i>				
								Whole State.				
								Washington County.				
								Providence City.				
								Providence County Towns.				
								Newport City.				
								Newport County Towns.				
								Kent County.				
								Bristol County.				
4	29	5	10	184	120	15	.03	2 Carbuncle.....	.08	3.24	3.87	1.80
...	1	...	1	5	7	3	6.27	367 Cholera Infantum.....	5.11	8.74	7.54	...
...	19	4	8	24	32	2	.20	17 Cholera Morbus.....	.30	.23	.26	...
20	21	5	18	64	98	2	1.55	91 Croup (Pseudo Membranous) ..	1.36	1.14	4.94	.90
3	6	...	...	48	34	2	3.90	228 Diphtheria.....	4.16	3.04	5.46	9.00
4	5	...	1	25	25	6	1.59	93 Diarrhœa.....	1.44	2.28	1.56	1.35
...	...	...	...	14	12	1	1.13	66 Dysentery.....	1.06	1.18	1.30	1.80
1	3	...	...	3	1	2	.46	27 Erysipelas.....	.51	.66	...	...
...	...	...	...	...	...	...	.17	10 Fever, Cerebro Spinal.....	.04	.14	...	.45
...	2	...	...	24	16	...	.02	1 Fever, Intermitent.....	.04	...	...	...
6	5	2	9	38	53	8	.71	42 Fever, Malarial.....	.68	1.14	...	...
...	1	...	...	4	...	...	2.06	121 Fever, Typhoid.....	2.25	1.80	1.55	2.70
...	...	...	...	6	...	...	.08	5 Fever, Unspecified.....	...	.19	...	...
...	5	...	...	...	...	...	.11	7 Influenza.....	.28	.28	...	...
...	...	...	...	4	9	...	.30	18 Measles.....	.39	.19	...	...

4	3	18	23	1	49	Pertussis.....	.83	.30	.98	.86	.....	.....	.78	1.80
.....	.....	.....	1	.....	1	Tonsillitis.....	.02	.....	.04	.....	.....	.....	.....	.....
13	2	41	30	2	88	Scarlatina.....	1.50	.59	1.27	1.94	.64	.....	3.38	.....
<i>Order Two.—Euthetic Dis.</i>														
.....	.....	.....	1	.....	1	Gonorrhœa.....	.02	.....	.04	.....	.....	.....	.....	.....
.....	2	5	10	2	19	Septicæmia.....	.32	.59	.43	.23	.....	.....	.52	.....
1	.....	3	7	.....	12	Syphilis.....	.20	.....	.30	.14	.32	.....	.....	.45
<i>Order Three.—Dietic Dis.</i>														
1	.....	2	5	.....	9	Alcoholism.....	.15	.....	.21	.09	.32	.....	.....	.45
.....	.....	1	2	.....	3	Delirium Tremens.....	.05	.....	.08	.05	.....	.....	.....	.....
.....	.....	1	3	.....	4	Purpura and Scurvy.....	.06	.....	.12	.05	.....	.....	.....	.....
<i>Order Four.—Parasitic Dis.</i>														
.....	.....	1	.....	1	2	Apthæ.....	.03	.30	.....	.05	.....	.....	.....	.....
CLASS II.—CONSTITUTIONAL.														
<i>Order One.—Dietetic Dis.</i>														
.....	.....	1	.....	.....	1	Gout.....	.02	.....	.....	.....	.32	.....	.....	.....
7	5	1	5	5	45	Dropsy.....	.77	1.50	.21	.98	.32	.77	1.30	3.15
1	.....	3	1	.....	15	Anæmia.....	.26	.....	.04	.47	.97	.....	.....	.45
3	8	21	47	11	95	Cancer, Various.....	1.62	3.30	2.00	.98	.97	1.55	2.08	1.35
1	.....	4	8	.....	14	Cancer of Breast.....	.25	.....	.34	.19	.32	.....	.....	.45
1	3	1	16	1	30	Cancer of Stomach.....	.51	.30	.68	.38	.32	.....	.78	.45
1	.....	4	16	..	23	Cancer of Uterus.....	.39	.....	.68	.19	.64	.....	.....	.45
.....	1	2	3	.....	6	Mortification.....	.10	.....	.12	.09	.....	.....	.26	.....
.....	1	2	7	4	34	Rheumatism.....	.57	1.16	.30	.86	.64	1.55	.26	.....

TABLE X.—CLASSIFICATION AND PERCENTAGE, 1886.—Continued.

NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.					CAUSES OF DEATH.					PERCENTAGE OF DEATHS IN THE WHOLE STATE.						PERCENTAGE OF DEATHS IN EACH DIVISION.					
Bristol County.	Kent County.	Newport County.	Newport City.	Providence County.	Providence City.	Washington County.	Whole State.			Percentage in the Whole State.	Washington County.	Providence City.	Providence County.	Newport City.	Newport County.	Kent County.	Bristol County.				
<i>Order Two.—Tubercular Dis.</i>																					
7	2	1	34	21	34	1	66	Serofala.....		1.13	.30	1.45	.98	.32	.....	.52	3.15		
.....	.....	.....	15	4	.....	.....	19	Tabes Mesenterica.....		.32	.....	.63	.19	.....	.....	.....	.....
23	43	14	43	276	368	59	826	Phthisis (Pulmonalis).....		14.12	17.52	15.65	13.05	13.98	10.85	11.20	10.35				
2	1	1	12	9	12	.....	25	Hydrocephalus .....		.41	.....	.51	.43	.....	.77	.26	.90
.....	.....	1	16	12	.....	.....	29	Tubercular Meningitis.....		.50	.....	.68	.57	.....	.77	.....	.....		
<i>CLASS III.—LOCAL.</i>																					
<i>Order One.—Diseases of the Nervous System.</i>																					
1	1	6	8	14	8	.....	30	Encephalitis.....		.51	.....	.34	.66	1.94	.....	.26	.45
2	6	5	53	34	53	1	101	Meningitis		1.74	.30	2.25	1.61	1.61	.....	1.56	.90			
6	18	13	99	70	99	16	230	Apoplexy.....		3.93	4.64	4.22	3.31	4.20	6.20	4.68	2.70				
5	8	5	21	38	21	19	102	Paralysis.....		1.76	5.64	.90	1.80	1.61	4.65	2.08	2.25				
3	1	1	7	37	7	.....	49	Insanity.....		.83	.....	.30	1.75	.....	.77	.26	1.35
.....	.....	1	.....	1	.....	.....	2	Chorea .....		.03	.....	.....	.05	.32	.....	.....	.....	
.....	1	1	7	1	.....	.....	14	Epilepsy.....		.25	.88	.30	.09	.32	.....	.26	.....			
.....	.....	1	5	1	.....	.....	8	Tetanus .....		.13	.....	.21	.05	.32	.77	.....	.....		

5	5	2	9	28	66	6	121	Convulsions.....	2.06	1.76	2.81	1.33	2.90	1.55	1.30	2.25
1	7	1	1	21	17	3	51	<i>Brain Diseases</i>.....	.86	.88	.72	.98	.32	.77	1.82	.45
<i>Order Two.—Diseases of the Circulatory System.</i>																
...	...	...	1	1	1	...	3	Aneurism.....	.05	...	.04	.05	.32	...	...	...
14	24	4	19	98	168	33	360	<i>Heart Diseases</i>	6.15	9.57	7.14	4.77	6.10	3.12	6.24	6.30
<i>Order Three.—Diseases of the Respiratory Organs.</i>																
...	2	...	...	...	7	...	9	Laryngitis.....	.15	...	.30	...	...	...	.52	.90
3	4	1	5	61	68	1	143	Bronchitis, Acute.....	2.43	.30	3.00	2.86	1.60	.77	1.04	...
...	...	...	3	13	15	...	31	Bronchitis, Chronic	.53	...	.63	.61	.96	...	...	...
...	2	1	...	3	5	...	11	Pleurisy.....	.18	...	.21	.14	...	.77	.52	...
17	29	15	22	161	209	28	481	Pneumonia.....	8.18	8.32	8.88	7.56	7.10	11.62	7.54	7.65
1	...	...	...	10	2	...	13	Asthma.....	.22	...	.08	.47	...	...	...	.45
...	...	...	...	2	3	...	5	<i>Lung Diseases</i>.....	.08	...	.12	.09	...	...	...	...
<i>Order Four.—Diseases of the Digestive Organs.</i>																
1	1	...	2	10	16	1	31	Gastritis.....	.53	.30	.68	.47	.64	...	.26	.45
6	3	1	1	13	50	3	77	Enteritis.....	1.31	.89	2.13	.61	.32	.77	.78	2.70
4	3	1	2	19	30	...	59	Peritonitis.....	1.00	...	1.27	.89	.64	.77	.78	1.80
...	...	...	...	...	1	...	1	Ulceration of Intestines	.02	...	.04	...	...	...	...	...
...	...	1	1	6	7	...	15	Hernia.....	.26	...	.30	.28	.32	.77	...	...
1	...	...	...	4	...	2	7	Ileus.....	.12	.59	...	.19	...	...	...	.45
...	...	...	...	1	1	...	2	Intussusception.....	.03	...	.04	.05	...	...	...	...
...	2	...	2	...	1	2	7	Stricture of Intestines	.12	.59	.04	...	.64	...	.52	...
1	2	1	2	17	3	1	27	<i>Stomach Diseases</i>.....	.46	.30	.12	.81	.64	.77	.52	.45
...	...	...	...	4	5	...	9	Hepatitis.....	.15	...	.21	.19	...	...	...	...
...	...	...	...	...	1	1	2	Jaundice.....	.03	.30	.04	...	...	...	...	...

[illegible]

TABLE X.—CLASSIFICATION AND PERCENTAGE, 1886.—Continued.

NUMBER OF DEATHS IN EACH DIVISION OF THE STATE.							PERCENTAGE OF DEATHS IN EACH DIVISION.										
CAUSES OF DEATH.							Percentage in the Whole State.										
Whole State.																	
Bristol County.	Kent County.	Newport Towns.	Newport City.	Providence County Towns.	Providence City.	Washington County.	Bristol County.	Kent County.	Newport City.	Newport County Towns.	Providence County Towns.	Providence City.	Washington County.				
16	24	15	21	100	73	27	276	276	Old Age.....	Order Three.— <i>Developmental Diseases of Old People.</i>	4.69	8.02	3.10	4.73	11.63	6.24	7.20
....	4	...	...	2	6	1	13	13	Atrophy.....	Order Four.— <i>Diseases of Nutrition. Adolescent and Adult.</i>	.22	.30	.25	.09	...	1.04	...
1	1	1	10	36	6	3	58	58	Debility.....		.98	.89	.25	1.69	.77	.26	.45
CLASS V.—VIOLENCE AND OTHERWISE.																	
Order One.— <i>Accident or Negligence.</i>																	
4	...	1	3	26	17	3	54	54	Accident, Various.....		.92	.89	.72	1.23	.77	...	1.80
1	2	...	...	...	17	..	20	20	Falls.....		.34	...	.72	...	...	.52	.45
...	...	...	...	10	11	2	23	23	Burns and scalds.....		.39	.59	.47	.47	...	...	...
...	...	...	...	2	4	...	6	6	Poison.....		.10	...	.17	.09	4.65	...	...
7	6	6	6	14	15	4	58	58	Drowning.....		.98	1.18	.63	.65	1.94	3.12	3.15

1	2	...	2	3	1	9	Suffocation.....	.15	.30	.13	.09	.....	.52	.45
3	1	...	8	5	3	20	Railroad.....	.34	.89	.21	.38	.....	.26	1.35
.....	.....	.....	.....	2	...	2	<i>Order Two.—Homicide.</i>	.03	.....	.08	.....	.....	.....	.....
1	3	1	4	7	...	17	<i>Order Three.—Suicide.</i>	.29	.....	.30	.19	.32	.77	.45
.....	.....	.....	.....	.....	.....	.....	<i>Order Four.—Various.</i>	.....	.....	.....	.....	.....	.....	.....
4	4	2	24	11	1	51	Unclassified.....	.98	.30	.47	1.14	1.61	1.55	1.80
2	2	1	24	12	6	51	Cause not Specified.....	.87	1.78	.51	1.18	1.29	.77	.90

TABLE XI.—OCCUPATIONS AND AGES AT DEATH, 1886.

Showing the Number, the Aggregate and the Average Ages at Death of the Decedents in the several Occupations, Ages under Twenty being excluded.

OCCUPATIONS.	STATE OF RHODE ISLAND.		
	Number of Decedents.	Aggregate Age.	Average Age.
I.			
TILLERS OF THE SOIL.			
Farmers and Farm Laborers	185	12,504	67.59
Gardeners	6	356	59.33
	191	12,860	67.33
II.			
PROFESSIONAL.			
Artists	1	24	24.00
Civil Engineers	3	126	42.00
Clergymen	4	270	67.50
Dentists	1	69	69.00
Lawyers	6	256	42.66
Musicians	1	54	54.00
Photographers	1	56	56.00
Physicians	12	769	64.00
Policemen	1	79	79.00
Public Officers	4	211	52.75
Students	1	21	21.00
Teachers	3	154	51.33
	38	2,089	55.00
III.			
OCCUPATIONS—Optional Activity—			
AGENTS, FINANCIERS, TRADERS, &C.			
Agents	3	146	48.66
Bankers	3	208	69.33
Brokers	8	556	69.50
Druggists	5	274	54.80
Grocers	21	1,181	56.00
Hotel Keepers	4	176	44.00
Manufacturers	16	1,081	67.50

TABLE XI.—OCCUPATIONS, 1886.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.		
	Number of Deaths.	Aggregate Age.	Average Age.
Marketmen.....	2	94	47.00
Merchants.....	21	1,365	65.00
Liquor Dealers.....	6	264	44.83
Railroad Employees.....	3	104	34.66
Saloon Keepers.....	6	338	56.33
Stable Keepers.....	2	88	44.00
Traders and Dealers, Various.....	14	748	53.43
Undertakers.....	1	77	77.00
	115	6,700	58.26
IV.			
OCCUPATIONS—OUTDOOR— <i>Localized</i> .			
Bricklayers.....	1	48	48.00
Carpenters and Joiners.....	56	3,098	55.32
Masons.....	30	1,826	60.86
Ship Carpenters.....	4	269	67.25
Stone and Marble Cutters.....	4	208	52.00
Stevedores.....	1	93	93.00
Tanners.....	1	56	56.00
Wheelwrights.....	2	132	66.00
	99	5,730	57.77
V.			
OCCUPATIONS—INDOOR— <i>Active</i> .			
Bakers.....	4	210	52.50
Blacksmiths.....	18	1,102	61.22
Block Makers.....	1	74	74.00
Boiler Makers.....	5	213	42.60
Cabinet Makers.....	4	248	62.00
Carriage Makers.....	3	199	66.33
Confectioners.....	3	100	33.33
Cooks.....	2	116	58.00
Coopers.....	6	485	80.83
Dyers.....	3	167	55.66
Gaspipers.....	4	185	46.25
Machinists.....	47	2,337	49.72
Mechanics.....	11	624	56.73

TABLE XI.—OCCUPATIONS, 1886.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.		
	Number of Dece- dents.	Aggregate Age.	Average Age.
Moulders.....	2	115	57.50
Painters.....	19	978	51.42
Plumbers.....	3	112	37.33
Superintendents and Overseers.....	12	732	61.00
Tinsmiths.....	6	222	37.00
Upholsterers.....	1	23	23.00
Waiters.....	2	68	34.00
Other Mechanics.....	2	92	46.00
	158	8,393	53.12
VI.			
OCCUPATIONS—INDOOR— <i>Restricted Activity.</i>			
Barbers.....	7	344	49.14
Bookkeepers.....	7	387	55.30
Cigar Makers.....	1	38	38.00
Clerks and Salesmen.....	35	1,298	37.10
Engravers and Lithographers.....	4	207	51.75
File Cutters.....	5	186	37.20
Harness Makers.....	2	94	47.00
Jewelry.....	47	1,931	41.10
Laundrymen.....	1	41	41.00
Operatives.....	98	4,404	44.93
Printers.....	9	528	58.66
Rubber Workers.....	11	531	48.30
Shoemakers.....	11	618	56.20
Silversmiths.....	6	296	49.33
Tailors.....	14	723	51.64
Telegraphers.....	1	47	47.00
	259	11,673	45.07
VII.			
OCCUPATIONS AT LARGE— <i>Active.</i>			
Butchers.....	9	418	46.44
Coachmen and Hackmen.....	7	322	46.00
Engineers and Firemen.....	14	588	42.00
Expressmen.....	2	85	42.50

TABLE XI.—OCCUPATIONS, 1886.—Continued.

OCCUPATIONS.	STATE OF RHODE ISLAND.		
	Number of Decedents.	Aggregate Age.	Average Age.
Fishermen and Oystermen.....	8	398	49.75
Peddlers.....	6	334	55.66
Sea Captains.....	7	404	57.71
Seamen, Ordinary.....	14	709	50.64
Teamsters.....	14	641	45.80
	81	3,899	48.14
VIII.			
WITHOUT SPECIAL TRADES.			
Hostlers.....	4	172	43.00
Janitors.....	3	169	56.33
Laborers.....	289	14,078	48.71
Porter.....	1	30	30.00
Servants.....	3	135	45.00
Stevedores.....	1	54	54.00
Watchmen.....	4	195	48.75
	305	14,733	48.30
IX.			
WOMEN.			
Domestics.....	33	1,437	43.54
Dressmakers and Seamstresses.....	4	789	47.25
*Housekeepers.....	187	10,374	59.00
Laundresses.....	1	80	80.00
Nurses.....	2	135	67.50
Operatives.....	28	798	28.50
Tailoresses.....	1	88	88.00
Teachers.....	6	316	52.66
	262	13,417	51.21

* Engaged wholly or partially in their own work, and not including decedents in Providence city.

In addition to the aforementioned there was: one Caterer, aged 63 years; one Clock Maker, aged 67 years; one Ice Cream Maker, 36; one Inspector, 56; one Lather, 29; one Literateur, 81; one Professor, 57; one Veterinary Surgeon, 53; and one Slater, 56.

TABLE XI—RECAPITULATION BY CLASSES.

OCCUPATIONS.	STATE OF RHODE ISLAND.		
	Number of Dece- dents.	Aggregate Age.	Average Age.
I.			
TILLERS OF THE SOIL.....	191	12,860	67.33
II.			
PROFESSIONAL SERVICES.....	38	2,089	55.00
III.			
AGENTS, FINANCIERS, TRADERS, &C....	115	6,700	58.26
IV.			
OCCUPATIONS—OUTDOOR— <i>Localized</i>	99	5,730	57.77
V.			
OCCUPATIONS—INDOOR— <i>Active</i>	158	8,393	53.12
VI.			
OCCUPATIONS—INDOOR— <i>Limited Activ- ity</i>	259	11,673	45.07
VII.			
OCCUPATIONS AT LARGE— <i>Active</i>	81	3,899	48.13
VIII.			
NO SPECIAL TRADES.....	305	14,733	48.30
IX.			
WOMEN.....	262	13,417	51.21
ALL CLASSES.....	1,508	79,494	52 71

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1886.

Ages under twenty being excluded.

OCCUPATIONS.	Whole Number.	Accidents.	Apoplexy and Paralysis.	Aneurism.	Asthma.	Bladder, Diseases of.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Diabetes.	Diarrhea.	Enteritis.	Erysipelas.	Fever, Malarial.	Fever, Typhoid.	Heart, Diseases of.	Insanity.	Intemperance.	Kidney, Diseases of.	Laryngitis.	Liver, Diseases of.	Marasmus.	Old Age.	Pneumonia.	Rheumatism.	Spine, Diseases of.	Stomach, Diseases of.	Suicide.	Tuberculosis.	
I.																															
TILLERS OF THE SOIL.																															
Farmers.....	183	9	27	1	..	5	7	4	2	28	5	..	2	1	1	3	22	..	1	12	1	..	1	24	17	2	..	1	2	..	
Gardeners.....	6	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	1	..	..
II.																															
PROFESSIONAL.																															
Artists.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Civil Engineers.....	3	..	..	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	2	..	..	..	..	..
Clergymen.....	4	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Dentists.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lawyers.....	6	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	1	..	..	..	..
Musicians.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Physicians.....	12	2	2	1	1	..	..	..	..	2	1	1	..	..	..	..	1	..	..	..	..	..	..	..	2	..	..	2	..	..

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1886.—Continued.

OCCUPATIONS.	Whole Number.	Accidents.	Apoplexy and Paralysis.	Aneurism.	Asthma.	Bladder, Diseases of.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Diabetes.	Diarrhoea.	Epilepsia.	Fever, Malarial.	Fever, Typhoid.	Heart, Diseases of.	Insanity.	Intemperance.	Kidney, Diseases of.	Laryngitis.	Liver, Diseases of.	Marasmus.	Old Age.	Pneumonia.	Rheumatism.	Spine, Diseases of.	Stomach, Diseases of.	Suicide.	Tuberculosis.	
Tanners.....	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wheelwrights.....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
<hr/>																														
99	3	17	..	..	..	2	5	8	15	..	..	..	..	..	2	6	..	..	8	1	1	1	12	15	..	1	1	1	..	
<hr/>																														
V.																														
INDOOR—Active.																														
Bakers.....	4	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
Blacksmiths.....	18	1	4	..	..	1	1	..	1	..	..	..	..	..	..	2	..	..	2	..	1	..	1	5	..	..	..	..	..	..
Cabinet Makers.....	4	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Carriage Makers.....	4	1	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Confectioners.....	3	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Cooks.....	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Coopers.....	6	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..
Dyers.....	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..
Machinists.....	45	..	3	..	1	1	..	2	1	14	1	..	1	..	3	6	..	1	5	1	1	..	3	2	..	..	..	..	..	..
Mechanics.....	23	2	5	..	1	1	..	..	1	2	..	1	..	..	..	2	..	..	3	..	1	1	1	2	..	..	..	..	2	..

OCCUPATIONS.

OCCUPATIONS.	Whole Number.	Accidents.	Apoplexy and Paralysis.	Aneurism.	Asthma.	Bladder, Diseases of.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Diabetes.	Dysentery.	Epilepsy.	Erysipelas.	Fever, Malarial.	Fever, Typhoid.	Heart, Diseases of.	Insanity.	Intemperance.	Kidney, Diseases of.	Laryngitis.	Liver, Diseases of.	Marasmus.	Old Age.	Pneumonia.	Rheumatism.	Spine, Disease of.	Stomach, Diseases of.	Suicide.	Tuberculosis.	
Moulders.....	9	2	1							1																					
Painters.....	19	2	5			1	1			3				1			3			2					1						
Plumbers.....	3									1	1														1						
Superintendents and Overseers ..	12	1	2						1	1			1				3			2											
Tinsmiths.....	6									3						1								1		1					
Upholsters.....	2									2																					
Waiters.....	2									1												1									
	159	6	25			3	2	4	4	30	1	2	4	1		5	19		1	15	1	7		10	13	1		2	1		
VI.																															
INDOOR—Restricted Activity.																															
Barbers.....	7						1			3							1			2											
Bookbinders.....	1												1																		
Bookkeepers.....	7		1							2	1						1								2						
Cigar Makers.....	1																								1						
Clerks and Salesmen.....	37		4				2	1	1	7	1					4	4			3		1			7	1	1				
Engravers.....	4									1														1	1					1	

OCCUPATIONS.	Whole Number.		Accidents.	Apoplexy and Paralysis.	Aneurism.	Asthma.	Bladder, Diseases of.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Diabetes.	Diarrhea.	Enteritis.	Erysipelas.	Fever, Malarial.	Fever, Typhoid.	Heart, Diseases of.	Insanity.	Intemperance.	Kidney, Diseases of.	Laryngitis.	Liver, Diseases of.	Marasmus.	Old Age.	Pneumonia.	Rheumatism.	Spine, Diseases of.	Stomach, Diseases of.	Suicide.	Tuberculosis.
Engineers and Firemen.....	14	3	...	...	...	...	...	...	...	2	3	...	1	...	...	...	...	2	...	...	1	...	1	...	...	...	...	...	...	...	...
Expressmen.....	2	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fishermen and Oystermen.....	9	...	2	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	1	...	...	...	...	...	...	2	...	...	...	...	...
Peddlers.....	6	1	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
Sailors.....	14	6	...	...	...	...	...	...	...	...	3	...	...	...	1	1	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...
Sea Captains.....	7	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	1	...	...	...	...	...
Teamsters.....	14	...	1	...	...	...	2	...	...	...	5	...	...	...	...	...	...	1	...	...	2	1	...	...	...	1	1	...	...	...	...
	81	10	...	...	...	...	4	3	...	2	19	1	...	1	1	1	2	6	1	...	5	1	2	...	3	7	1	...	...	1	...
VIII.																															
No SPECIAL TRADES.																															
Hostlers.....	4	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...
Janitors.....	3	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Laborers.....	292	20	26	...	3	2	8	8	6	84	2	4	8	3	2	11	22	4	3	7	1	4	1	21	35	1	...	1	2	1	3
Servants.....	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Watchmen.....	4	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
	305	21	26	...	3	2	8	10	6	87	2	4	8	3	2	12	24	4	3	8	1	4	1	21	37	1	...	1	2	2	3

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH, 1886.—Continued.

OCCUPATIONS.	Whole Number.	Accidents.	Apoplexy and Paralysis.	Aneurism.	Asthma.	Bladder, Diseases of.	Bronchitis.	Cancer.	Consumption.	Diabetes.	Diarrhoea.	Dysentery.	Fever, Malarial.	Fever, Typhoid.	Heart, Diseases of.	Insanity.	Intemperance.	Kidney, Diseases of.	Laryngitis.	Liver, Diseases of.	Marasmus.	Old Age.	Pneumonia.	Rheumatism.	Spine, Diseases of.	Stomach, Diseases of.	Suicide.	Tuberculosis.
IX.																												
WOMEN.																												
Domestics.....	33	1	2		1	1	2	3	3				1	1	2	6		2		2		3	2		1		1	1
Dressmakers and Seamstresses...	5					1		3						1														
*Housekeepers.....	162	3	16		1	8	3	6	42	1	3	3	1	3	5	11	3	6	4		4	16	23		4			
Nurses.....	2							1	1											1			1					
Operatives.....	28		1			1			15			1		3	2		1	1		1			1	1	1			
Tailoresses.....	1							1																				
Teachers.....	6		1			1		1		1		1			1										1			
Waitresses.....	1																						1					
	238	4	20		2	12	4	10	64	2	3	6	1	4	11	20	3	9	7		7	19	28	1	7		1	1

* Engaged wholly or partially in their own household duties, decedents in Providence city not included.

TABLE XII Continued.—OCCUPATIONS AND CAUSES OF DEATH.—RECAPITULATION BY CLASSES.

CLASSES.	Whole Number.	Accidents.	Apoplexy and Paralysis.	Aneurism.	Bladder, Diseases of.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Diabetes.	Diphtheria.	Enteritis.	Erysipelas.	Fever, Malarial.	Fever, Typhoid.	Heart, Diseases of.	Insanity.	Intemperance.	Kidney, Diseases of.	Laryngitis.	Liver, Diseases of.	Marasmus.	Old Age.	Pneumonia.	Rheumatism.	Spine, Diseases of.	Stomach, Diseases of.	Suicide.	Tuberculosis.
I. TILLERS OF THE SOIL.....	189	9	2	1	5	7	4	2	29	6	2	1	2	1	1	3	25	112	1	5	1	24	17	2	2	2	2	2	2
II. PROFESSIONAL SERVICES.....	36	1	3	2	1	2	1	1	4	1	1	1	1	1	1	1	2	1	5	2	1	1	5	1	2	1	2	1	1
III. AGENTS, TRADERS, ETC.....	113	2	15	1	3	5	1	5	18	5	1	1	1	1	1	7	13	1	6	7	7	8	9	2	2	2	1	1	1
IV. OCCUPATIONS—OUTDOOR.....	99	3	17	1	2	5	8	15	1	1	1	1	1	1	2	6	1	8	1	1	1	12	15	1	1	1	1	1	1
V. OCCUPATIONS—INDOOR—Active.	159	6	25	1	3	2	4	4	30	1	2	4	1	1	5	19	1	115	1	7	7	10	13	1	2	1	2	1	1

TABLE XII.—OCCUPATIONS AND CAUSES OF DEATH.—RECAPITULATION BY CLASSES.—Continued.

CLASSES.	Whole Number.	Accidents.	Apoplexy and Paralysis.	Aneurism.	Asthma.	Bladder, Diseases of.	Brain, Diseases of.	Bronchitis.	Cancer.	Consumption.	Diabetes.	Diarrhoea.	Enteritis.	Erysipelas.	Fever, Malarial.	Fever, Typhoid.	Heart, Diseases of.	Insanity.	Intemperance.	Kidney, Diseases of.	Laryngitis.	Liver, Diseases of.	Malaria.	Old Age.	Pneumonia.	Rheumatism.	Spine, Diseases of.	Stomach, Diseases of.	Suicide.	Tuberculosis.
VI. OCCUPATIONS — INDOOR — <i>Restricted Activity</i>	259	8	20	....	4	10	6	3	88	3	3	3	3	1	3	13	25	1	1	14	1	2	1	4	31	6	1	4	2	1
VII. OCCUPATIONS AT LARGE.....	81	10	10	....	4	3	..	2	19	1	..	1	1	1	1	2	6	1	..	5	1	2	..	3	7	1	..	..	1	..
VIII. NO SPECIAL TRADES.....	305	21	26	..	3	2	8	10	7	87	2	4	8	3	2	12	24	4	3	8	1	4	1	21	37	1	..	2	2	3
IX. WOMEN.....	238	4	20	..	2	..	12	4	10	64	2	3	6	1	4	11	20	3	..	9	..	7	..	19	28	1	..	7	..	1
ALL CLASSES.....	1,479	64	163	3	6	22	51	34	41	354	21	14	25	8	12	55	140	11	6	82	6	37	4	102	162	15	2	22	10	5

RESULTS AND OBSERVATIONS, 1886.

There were recorded in the State of Rhode Island, during the year 1886, seven thousand six hundred and twenty-one births (7,621); two thousand seven hundred and fifty marriages (2,750); and five thousand eight hundred and forty-nine deaths (5,849).

TABLE XIII.

Presenting the General Results of Registration in the State, during each of the last thirty-three years.

Years.	Whole Number of Births.	Still-born.	Living Births.	Marriages.	Deaths.
1854.....	2,105.....	78.....	2,027.....	1,048.....	1,730.....
1855.....	2,926.....	124.....	2,802.....	1,375.....	1,846.....
1856.....	2,906.....	183.....	2,723.....	1,535.....	2,042.....
1857.....	4,026.....	185.....	3,841.....	1,526.....	2,325.....
1858.....	4,263.....	177.....	4,086.....	1,438.....	2,616.....
1859.....	4,500.....	177.....	4,323.....	1,672.....	2,270.....
1860.....	4,660.....	167.....	4,493.....	1,748.....	2,686.....
1861.....	4,840.....	146.....	4,694.....	1,533.....	2,927.....
1862.....	4,125.....	123.....	4,002.....	1,450.....	2,591.....
1863.....	3,691.....	111.....	3,580.....	1,618.....	3,207.....
1864.....	3,892.....	138.....	3,754.....	1,844.....	3,360.....
1865.....	3,955.....	177.....	3,778.....	1,896.....	3,405.....
1866.....	4,902.....	172.....	4,730.....	2,318.....	2,970.....
1867.....	5,127.....	163.....	4,964.....	2,344.....	2,889.....
1868.....	5,372.....	212.....	5,160.....	2,285.....	2,912.....
1869.....	5,245.....	220.....	5,025.....	2,289.....	3,382.....
1870.....	5,215.....	234.....	4,981.....	2,362.....	3,238.....
1871.....	5,678.....	223.....	5,455.....	2,336.....	3,344.....
1872.....	6,143.....	202.....	5,941.....	2,537.....	4,247.....
1873.....	6,022.....	228.....	5,794.....	2,630.....	4,403.....
1874.....	6,466.....	277.....	6,189.....	2,541.....	4,229.....
1875.....	6,508.....	246.....	6,262.....	2,485.....	4,317.....
1876.....	6,329.....	234.....	6,105.....	2,253.....	4,116.....
1877.....	6,225.....	242.....	5,993.....	2,282.....	4,450.....
1878.....	6,714.....	248.....	6,466.....	2,324.....	4,441.....
1879.....	6,350.....	216.....	6,134.....	2,396.....	4,472.....
1880.....	6,295.....	192.....	6,103.....	2,769.....	4,829.....
1881.....	6,761.....	264.....	6,497.....	2,750.....	5,016.....
1882.....	6,825.....	253.....	6,572.....	2,634.....	5,074.....
1883.....	7,046.....	253.....	6,793.....	2,611.....	5,282.....
1884.....	7,305.....	272.....	7,033.....	2,558.....	5,141.....
1885.....	7,028.....	271.....	6,757.....	2,488.....	5,389.....
1886.....	7,621.....	293.....	7,328.....	2,750.....	5,849.....

During the period of thirty-three years there were recorded, in Rhode Island, 177,076 births, of which number 6,691 were still-born, and 170,385 were living children.

During the same period there were recorded 70,624 marriages, or 141,248 persons married, and 120,985 deaths.

These results show that in every 26.6 births there was one still-born child, or that in every 1,000 births there were 37.6 still-born and 962.4 living children.

The same results also show that the ratio of whole number of living births to the whole number of persons married, and to the whole number of decedents, each during the same period, were as follows :

	Persons married.	Deaths.
For every 100 living births there were.....	80.....	71.....

It will be seen, by Table XIII, that there was, during 1886, a very unusual increase in the number of births, marriages and deaths over those of the previous year. The proportion of each number to the population was also considerably larger than the proportionate increase of population during the same period. The increase in the number of births was 8.4 per cent.; the increase in the number of marriages, 10.5 per cent.; and the increase in the number of deaths was 8.5 per cent.; while the increase of population was probably about 2.0 per cent.

TABLE XIV.

Comparative exhibit of Births, Marriages and Deaths in each town in Rhode Island, in each of the four years, 1883, 1884, 1885 and 1886.

TOWNS AND DIVISIONS OF THE STATE.	Births in 1883.	Births in 1884.	Births in 1885.	Births in 1886.	Marriages in 1883.	Marriages in 1884.	Marriages in 1885.	Marriages in 1886.	Deaths in 1883.	Deaths in 1884.	Deaths in 1885.	Deaths in 1886.
Barrington.....	21	20	27	29	10	11	7	5	14	16	17	29
Bristol.....	155	131	111	123	40	33	32	40	116	113	98	116
Warren.....	82	108	71	90	45	35	30	34	72	72	70	78
BRISTOL COUNTY.....	258	259	209	242	95	79	69	79	202	201	185	233
Coventry.....	97	95	72	108	23	19	31	39	81	82	72	76
East Greenwich.....	66	56	71	47	38	29	26	32	57	39	72	49
West Greenwich.....	22	18	23	14	5	4	2	2	11	18	12	14
Warwick.....	321	335	286	336	107	108	109	114	153	136	199	248
KENT COUNTY.....	506	504	452	505	173	160	168	187	302	275	355	387
Jamestown.....	5	10	9	9	2	1	...	1	4	10	8	4
Little Compton.....	11	9	15	16	8	11	15	4	23	16	16	22
Middletown.....	16	33	14	29	7	2	2	3	12	14	17	21
New Shoreham.....	32	31	25	36	6	12	6	13	20	21	28	16
Portsmouth.....	29	29	27	21	16	5	7	11	27	29	32	25
Tiverton.....	43	53	68	55	21	23	13	16	33	44	43	41
TOWNS, NEWPORT Co....	136	165	158	166	69	54	43	51	119	134	144	129
NEWPORT CITY.....	587	570	529	600	131	134	147	134	311	274	267	309
Burrillville.....	100	115	93	109	26	30	31	39	86	85	75	70
*Cranston.....	133	134	129	136	22	19	26	28	108	109	104	83
Cumberland.....	176	174	200	211	71	62	58	48	146	158	176	189
East Providence.....	138	154	157	181	53	45	39	68	97	105	113	99
Foster.....	25	17	16	20	17	13	16	11	31	24	29	24
Glocester.....	49	39	47	52	10	20	13	14	25	31	30	36
Johnston.....	119	170	167	154	33	26	35	30	47	83	91	128
Lincoln.....	391	401	381	540	115	160	105	110	274	283	335	416
North Providence.....	21	24	23	29	3	3	5	9	17	16	19	17
North Smithfield.....	50	74	61	52	22	22	13	27	37	36	35	35
Pawtucket.....	527	557	530	558	214	197	254	253	300	353	434	470
Scituate.....	79	69	67	58	37	47	32	36	71	58	78	62
Smithfield.....	54	62	36	66	24	14	17	26	27	24	32	22
Woonsocket.....	411	447	414	523	154	157	147	161	311	282	304	372
TOWNS, PROVIDENCE Co.	2,273	2,437	2,321	2,689	801	815	791	860	1,707	1,742	1,855	2,023
PROVIDENCE CITY.....	2,916	2,956	2,936	2,960	1,777	1,114	1,091	1,249	2,357	2,233	2,164	2,353
Charlestown.....	14	25	10	18	13	12	9	8	12	16	18	9
Exeter.....	22	20	13	16	17	11	9	10	19	18	19	17
Hopkinton.....	49	52	50	45	34	29	22	26	39	24	37	50
North Kingstown.....	82	80	70	79	23	23	20	21	41	50	52	48
South Kingstown.....	108	73	104	107	35	39	47	49	42	52	70	78
Richmond.....	23	27	42	44	8	10	9	8	20	16	23	30
Westerly.....	72	137	134	150	44	48	63	68	48	106	94	105
WASHINGTON COUNTY...	370	414	423	459	174	172	179	190	221	282	313	337
STATE INSTITUTIONS.....	...	...	...	...	...	...	...	...	...	...	106	88
WHOLE STATE.....	7,046	7,305	7,028	7,621	2,611	2,558	2,488	2,750	5,282	5,141	5,389	5,849

* Exclusive of deaths in State Institutions.

† Including State Institutions.

It was remarked, on a previous page, that the number of births, marriages and deaths in Rhode Island, in 1886, was, in each class of events, a large increase over the previous year. This statement was true, with the exception of marriages in Newport, not only for the whole State, but of each of the counties. In the different towns, however, there were the usual differences of increase and decrease. In East Greenwich there was a decrease of about 33 per cent. in the number of births and of deaths, with a small increase in the number of marriages. In Jamestown the decrease of deaths was 50 per cent. The smaller the population of any town or division, the larger will be the percentage of any increased or decreased number, of one year as against another, of either of the events alluded to.

Table XIV will show the varying numbers, during each of the last four years.

TABLE XV.

Births, Marriages and Deaths in Rhode Island, in 1886, with the Number of Persons to each event in each of the Towns and Counties, and also the Excess of Births over the Deaths in each Town.

TOWNS AND DIVISIONS OF THE STATE.	Population, 1886.*	Births in 1886.	Of Population one Birth in every	Marriages in 1886.	Of Population one person married in every	Deaths in 1886.	Of Population one Death in every	Excess of Births over Deaths.
Barrington.....	1,394	29	48.1	5	139.4	29	48.1	0
Bristol.....	6,000	123	48.8	40	75.0	116	51.7	7
Warren.....	4,209	90	46.8	34	61.9	78	54.0	12
BRISTOL COUNTY.....	11,603	242	47.9	79	73.4	223	52.0	19
Coventry.....	5,000	108	46.3	39	64.1	76	65.8	32
East Greenwich.....	2,800	47	59.6	32	43.8	49	57.1	-2
West Greenwich.....	850	14	60.7	2	212.5	14	60.7	0
Warwick.....	13,508	336	40.2	114	59.2	248	54.4	88
KENT COUNTY.....	22,158	505	43.9	187	59.2	387	57.2	118
Jamestown.....	520	9	57.8	1	260.0	4	130.0	5
Little Compton.....	1,052	16	65.7	4	131.5	22	47.8	-8
Middletown.....	1,175	29	40.5	3	195.8	21	55.9	8
New Shoreham.....	1,275	36	35.4	13	49.0	16	79.7	20
Portsmouth.....	2,000	21	95.2	14	71.4	25	80.0	-4
Tiverton.....	2,725	55	49.4	16	85.5	41	66.5	14
NEWPORT COUNTY.....	8,747	166	52.7	51	85.8	129	67.8	37
NEWPORT CITY.....	20,466	606	34.1	134	76.4	309	66.8	291
Burrillville.....	5,400	109	49.5	39	69.2	70	77.1	39
†Cranston.....	4,800	136	42.6	28	85.7	83	57.8	53
Cumberland.....	7,163	211	33.9	48	74.6	189	37.9	22
East Providence.....	6,816	181	37.6	68	50.1	99	69.1	82
Foster.....	1,390	20	89.5	11	62.7	24	57.9	-4
Glocester.....	2,100	52	40.4	14	75.0	36	58.3	16
Johnston.....	7,500	154	48.7	30	125.0	128	52.2	26
Lincoln.....	18,000	540	33.3	110	81.1	416	43.3	124
North Providence.....	1,550	29	53.4	9	95.1	17	91.1	12
North Smithfield.....	3,160	52	60.8	27	58.5	35	93.1	17
Pawtucket.....	24,800	558	44.4	253	49.0	470	52.8	88
Scituate.....	3,600	58	62.1	36	50.0	62	58.1	-4
Smithfield.....	2,500	66	37.9	26	48.1	22	113.6	44
Woonsocket.....	19,000	523	36.3	161	59.0	372	51.1	151
TOWNS, PROVIDENCE COUNTY.....	107,779	2,689	40.1	860	62.7	2,023	53.3	666
PROVIDENCE CITY.....	120,000	2,960	40.5	1,249	48.0	2,353	51.0	607
Charlestown.....	1,050	18	58.9	8	65.1	9	116.7	9
Exeter.....	1,050	16	65.6	10	52.5	17	61.8	-1
Hopkinton.....	2,767	45	61.5	26	53.2	50	55.3	-5
North Kingstown.....	3,870	79	48.9	21	92.1	48	80.6	31
South Kingstown.....	5,600	107	52.3	49	57.1	78	71.8	29
Richmond.....	1,800	41	49.9	8	112.5	30	60.0	14
Westerly.....	6,500	150	43.3	68	47.8	105	61.9	45
WASHINGTON COUNTY.....	22,637	459	49.2	190	62.9	337	67.2	122
STATE INSTITUTIONS.....	1,300	.....	.....	.....	.....	88	14.8	.....

* Estimated.

† A few births in State Institutions included, but no deaths.

In Table XV will be found the number of persons in each town, to every single event of birth, marriage or death in the same town.

The following summary will give a condensed exhibit of the varying proportions, in the counties, county towns and cities:

	Births.	Marriages.	Deaths.	Excess
	Persons to each.	Persons to each person married.	Persons to each.	of births over deaths
Bristol County.....	48.3	73.4	52.0	19
Kent County.....	43.9	59.2	57.2	118
Newport Co. Towns.....	52.7	85.8	67.8	37
Newport City.....	34.1	76.4	66.8	291
* Providence Co. Towns.....	40.1	62.7	53.3	696
Providence.....	40.5	48.0	51.0	607
Pawtucket.....	44.4	49.0	52.8	88
Washington County.....	49.2	62.9	67.1	122
Whole State.....	40.8	56.5	53.2	1,772

In Bristol county, with a population of over eleven thousand, the excess of births over deaths was nineteen, that is, the addition by natural increase of less than two individuals to every one thousand of the population.

* Including city of Pawtucket.

TABLE XVI.

Births, Marriages and Deaths in Rhode Island, in 1886, with the number of each in every 1,000 of the Population of each Town, and the Excess of the Births over the Deaths in every 1,000 of the Population.

TOWNS AND DIVISIONS OF THE STATE.	Population, 1886.*	Births, 1886.	Births per 1,000 of Population.	Marriages, 1886.	Persons married pr 1,000 of Popula- tion.	Deaths, 1886.	Deaths per 1,000 of Population.	Excess of Births over Deaths, per 1,000.
Barrington.....	1,394	29	20.8	5	7.2	29	20.8	0
Bristol.....	6,000	123	20.5	40	13.3	116	19.3	1.2
Warren.....	4,209	90	21.4	34	16.1	78	18.5	2.9
BRISTOL COUNTY.....	11,603	242	20.9	79	13.6	223	19.2	1.7
Coventry.....	5,000	108	21.6	39	15.6	76	15.2	6.4
East Greenwich.....	2,800	47	16.8	32	22.8	49	17.5	-0.7
West Greenwich.....	850	14	16.5	2	4.7	14	16.5	0
Warwick.....	13,508	336	22.1	114	16.9	248	18.3	3.8
KENT COUNTY.....	22,158	505	22.8	187	16.9	387	17.5	5.3
Jamestown.....	520	9	17.3	1	3.9	4	7.7	9.6
Little Compton.....	1,052	16	15.2	4	7.6	22	20.9	-5.7
Middletown.....	1,175	29	24.7	3	5.1	21	17.9	6.8
New Shoreham.....	1,375	36	28.2	13	20.4	16	12.5	5.7
Portsmouth.....	2,000	21	10.5	14	14.0	25	12.5	-2.0
Tiverton.....	2,725	55	20.2	16	11.7	41	15.0	5.2
NEWPORT COUNTY.....	8,747	166	18.9	51	11.6	129	14.7	4.2
NEWPORT CITY.....	20,466	600	29.3	134	13.1	309	15.1	14.2
Burrillville.....	5,400	109	20.2	39	14.5	70	13.0	7.2
†Cranston.....	4,800	126	23.5	28	11.7	83	17.3	6.2
Cumberland.....	7,162	211	29.5	48	13.4	189	26.3	3.2
East Providence.....	6,816	181	26.6	68	20.0	99	14.5	12.1
Foster.....	1,390	20	14.4	11	15.8	24	17.3	-2.9
Glocester.....	2,100	52	22.3	14	13.3	36	17.1	5.2
Johnston.....	7,500	154	20.5	30	8.0	128	17.1	3.4
Lincoln.....	18,000	540	30.0	110	12.2	416	23.1	6.9
North Providence.....	1,550	29	18.7	9	10.5	17	11.0	7.7
North Smithfield.....	3,160	52	16.4	27	17.1	35	11.1	5.3
Pawtucket.....	24,800	558	22.5	253	20.0	470	19.0	3.5
Scituate.....	3,600	58	16.1	36	20.0	62	17.4	-1.1
Smithfield.....	2,500	66	26.4	26	20.9	22	9.0	17.4
Woonsocket.....	19,000	523	27.5	161	16.1	372	19.5	8.0
TOWNS, PROVIDENCE COUNTY.....	107,779	2,689	27.2	860	15.9	2,023	18.8	8.4
PROVIDENCE CITY.....	120,000	2,960	24.7	1,249	20.8	2,353	19.6	5.1
Charlestown.....	1,050	18	17.0	8	15.4	9	8.6	8.4
Exeter.....	1,050	16	15.2	10	19.3	17	16.2	-1.0
Hopkinton.....	2,767	45	16.3	26	18.8	50	18.1	-1.8
North Kingstown.....	3,870	79	20.4	21	10.9	48	12.4	8.0
South Kingstown.....	5,600	107	19.1	49	17.5	78	13.9	5.2
Richmond.....	1,800	44	20.0	8	8.9	30	16.6	3.4
Westerly.....	6,500	150	23.1	68	20.9	105	16.2	6.9
WASHINGTON COUNTY.....	22,637	459	20.3	190	15.9	337	15.0	5.3
STATE INSTITUTIONS.....	1,300	.....	.....	.....	.....	88	67.7	.....
WHOLE STATE.....	310,857	7,621	24.5	2,750	17.7	5,849	18.8	5.7

BIRTHS. *Proportion to Population.*

Some of the curious disproportions and irregularities of vital statistics, comparing one town with another, may be found in the two last preceding Tables.

In the birth list, on the preceding page, it will be found that the town of Portsmouth had the smallest proportion, that is, 10.5 births in every 1,000 of the population, followed by Foster with 14.4 per 1000, Little Compton and Exeter with 15.2 per 1,000 of population.

In the same list it will be found that the towns having the largest proportion are Lincoln, Cumberland and Newport, in the order named, running from 30.0 births per 1,000 of population to 29.3 per 1,000. As a rule the proportions were considerably larger than in the previous year.

The proportions of births to population in the several counties, the towns of Providence and Newport counties, the cities of Providence, Pawtucket and Newport, and the whole State, during 1884, 1885 and 1886, are as follows :

	1886.	1885.	1884.	
Bristol County.....	20.9	18.4	22.9	births in every 1,000.
Kent County.....	22.8	20.9	23.3	births in every 1,000.
Newport County towns.....	18.9	18.1	19.0	births in every 1,000.
Newport City.....	29.3	27.0	29.2	births in every 1,000.
Providence County Towns.....	27.2	22.9	23.8	births in every 1,000.
Providence City.....	24.7	24.8	25.1	births in every 1,000.
Pawtucket City.....	22.5	23.1	24.3	births in every 1,000.
Washington County.....	20.3	18.8	18.5	births in every 1,000.
Whole State.....	24.5	23.1	24.0	births in every 1,000.

PERSONS MARRIED. *Proportion to Population.*

The disposition to be married in public in the church auditorium, usually in some larger town, reduces the percentage of persons recorded as married in many of the smaller towns below any uniform relation to population.

The proportion to the population, of persons married, can be more correctly shown in counties, or in cities and aggregates of towns.

The following summary will present the proportions in the manner suggested, for the last two years :

	1886.	1885.	
Bristol County.....	13.6	12.2	persons married in every 1,000.
Kent County.....	16.9	15.5	persons married in every 1,000.
Newport County Towns.....	11.6	9.9	persons married in every 1,000.
Newport City.....	13.1	15.0	persons married in every 1,000.
Providence County Towns.....	15.9	15.6	persons married in every 1,000.
Providence City.....	20.8	18.5	persons married in every 1,000.
Washington County.....	15.9	15.1	persons married in every 1,000.
Entire State.....	17.7	16.3	persons married in every 1,000.

DEATHS. *Proportion to Population.*

The death rate during 1886 was largest in the town of Cumberland, that is, 26.3 in every 1,000 of population. The town of Lincoln follows with a ratio of 23.1 per 1,000 living.

The town having the smallest death rate was Charlestown, with a proportion of 8.6 per 1,000 living. Smithfield had 9 per 1,000. Five other towns had less than 13 per 1,000.

Below may be found a summary of the ratios of mortality, in the cities and larger divisions of the State, and the whole State, for 1885 and 1886 :

	1886.	1885.	
Bristol County.....	19.2	16.3	in every one thousand of the population.
Kent County.....	17.5	16.4	in every one thousand of the population.
Towns, Newport County.....	14.7	16.5	in every one thousand of the population.
City of Newport.....	15.1	13.6	in every one thousand of the population.
Newport County.....	15.0	14.5	in every one thousand of the population.
Towns, Providence County.....	18.8	18.1	in every one thousand of the population.
City of Providence.....	19.6	18.3	in every one thousand of the population.
City of Pawtucket.....	19.0	19.0	in every one thousand of the population.
Providence County.....	19.2	18.3	in every one thousand of the population.
Washington County.....	15.0	14.1	in every one thousand of the population.
Whole State.....	18.8	17.7	in every one thousand of the population.

The death rate was larger in Bristol county, in 1886, than in the previous year, by 2.9 in every thousand of living population ; in Kent county by 1.1 ; in the city of Newport by 1.5 ; in Newport county by .5 ; in Providence county towns by .7 ; in the city of Providence by 1.3 ; in Washington county by .9 ; and in the whole State by 1.1 in every one thousand.

On the other hand, the death rate was smaller in Newport county

towns by 1.8 in every one thousand living, and the city of Pawtucket holding the same proportion in both years, that is, 19 deaths in every thousand living.

A comparative exhibit of the relative proportions of the births, marriages and deaths in the different counties and larger towns, in 1886, may be found in the following summary:

	Marriages.					
	Births		Persons married		Deaths	
	per 1000 of population.		per 1000 of population.		per 1000 of population.	
Bristol County.....	30.9	18.4	13.6	12.2	19.2	16.3
Kent County.....	32.8	30.9	16.9	15.5	17.5	16.4
Newport County Towns.....	18.9	18.1	11.6	9.9	14.7	16.5
Newport City.....	29.3	27.0	13.1	15.0	15.1	13.6
Providence County Towns.....	27.2	22.9	15.9	15.6	18.8	18.1
City of Providence.....	24.7	24.8	20.8	18.5	19.6	18.3
City of Pawtucket.....	22.5	23.1	20.0	22.3	19.0	19.0
Washington County.....	20.3	18.8	15.9	15.1	15.0	14.1
Entire State.....	24.5	23.1	17.7	16.3	18.8	17.7

TABLE XVII.

Showing the Proportions of Births, Marriages and Deaths to the Population, in the Aggregate for the whole State, in each of the last eighteen years.

YEARS.	BIRTHS.		MARRIAGES.		DEATHS.		
	Number.	Of population one birth in every	Number.	Of population one person married in every	Number.	Of population one death in every	Deaths in every 1,000 of the population.
1869.....	5,245	41.4	2,289	47.5	3,382	64.2	15.6
1870.....	5,215	41.7	2,362	46.0	3,238	67.1	14.9
1871.....	5,678	38.2	2,336	46.5	3,444	65.0	15.4
1872.....	6,143	35.4	2,537	42.9	4,247	51.2	19.5
1873.....	6,022	36.1	2,630	41.3	4,403	49.4	20.3
1874.....	6,466	39.9	2,541	50.8	4,229	61.1	16.4
1875.....	6,508	39.7	2,485	52.0	4,317	59.8	16.7
1876.....	6,329	40.8	2,253	57.3	4,116	62.7	15.9
1877.....	6,235	41.4	2,282	56.6	4,450	58.0	17.2
1878.....	6,714	38.5	2,324	55.7	4,441	58.1	17.2
1879.....	6,350	43.6	2,396	57.8	4,472	61.9	16.0
1880.....	6,295	43.9	2,769	49.9	4,829	57.3	17.5
1881.....	6,761	40.9	2,750	50.3	5,016	55.1	18.1
1882.....	6,825	40.5	2,634	52.5	5,074	54.5	18.3
1883.....	7,046	39.2	2,611	52.9	5,282	52.4	19.1
1884.....	7,305	41.7	2,558	59.4	5,141	59.2	16.1
1885.....	7,028	43.3	2,488	61.1	5,389	56.4	17.7
1886.....	7,621	40.8	2,750	56.5	5,849	53.2	18.8

TABLE XVIII.
Comparative Exhibit of Rates per 1,000 persons, of Births, Marriages and Deaths, in Rhode Island and in other States and Countries, 1860-1882.

STATES AND COUNTRIES.	AVERAGE, 1860-1879.						1880.			1881.			1882.			
	Birth rate.	Death rate.	Excess of Births over Deaths per 1,000.	Marriage rate.	Birth rate.	Death rate.	Excess of Birth rate over Death rate.	Marriage rate.	Birth rate.	Death rate.	Excess of Birth rate over Death rate.	Marriage rate.	Birth rate.	Death rate.	Excess of Birth rate over Death rate.	Marriage rate.
RHODE ISLAND.	25.1	16.7	8.4	20.4	22.8	17.5	5.3	20.0	24.4	18.1	6.3	19.8	24.7	18.3	6.4	19.1
Massachusetts.....	26.2	19.7	6.5	18.9	24.8	19.8	5.0	17.4	24.9	20.0	4.9	18.5	24.7	19.9	4.8	19.0
Vermont.....	20.2	15.1	5.1	15.6	20.5	15.8	4.7	16.4	20.3	16.7	3.6	16.6	19.5	16.5	3.0	17.6
Connecticut.....	23.8	16.3	7.5	.....	22.2	16.7	5.5	15.6	22.4	17.4	5.0	15.4	23.9	18.7	5.2	17.0
Austria.....	39.9	30.8	9.1	17.2	37.3	29.6	7.7	15.1	38.7	30.6	8.1	19.8	38.9	30.8	8.1	20.3
Denmark.....	31.2	19.7	11.5	15.4	31.8	20.4	11.4	15.2	32.3	18.3	14.0	15.6	32.4	19.5	12.9	15.4
England and Wales.....	35.4	22.0	13.4	16.6	34.2	20.5	13.7	14.9	33.9	18.9	15.0	15.1	33.7	19.6	14.1	15.5
France *......	26.0	23.6	2.4	15.9	24.5	22.8	1.7	14.9	24.9	22.0	2.9	15.0	24.8	22.2	2.6	14.8
Germany †.....	39.8	27.0	12.8	17.7	37.7	26.1	11.6	15.0	37.0	25.4	11.6	14.9	37.2	25.7	11.5	15.3
Hungary †.....	42.6	38.9	3.7	20.8	42.9	38.6	4.3	18.2	43.7	35.6	8.1	19.8	44.6	36.6	8.0	20.3
Italy §.....	37.2	29.9	7.3	15.2	33.6	30.5	3.1	13.8	38.0	27.6	10.4	16.2	37.1	27.5	9.6	15.7
Netherlands.....	35.4	24.6	10.8	16.2	35.6	23.6	12.0	15.0	34.9	21.5	13.4	14.6	35.3	20.7	14.6	14.3
Prussia.....	38.6	26.5	12.1	17.2	37.9	25.5	12.4	15.4	36.9	24.9	12.0	15.3	37.3	25.2	12.1	15.6
Sweden.....	31.2	19.2	12.0	13.6	29.4	18.1	11.3	12.6	29.1	17.7	11.4	12.4	29.4	17.4	12.0	12.7
Switzerland ¶.....	31.6	24.0	7.6	15.3	29.6	21.9	7.7	13.6	29.8	22.4	7.4	13.6	28.8	21.9	6.9	13.6
Spain †.....	37.2	29.7	7.5	15.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
* For 19 years. † For 9 years. ‡ 15 years. § 17 years. ¶ 15 years.																

* For 19 years.

† For 9 years.

‡ 15 years.

§ 18 years.

|| 15 years.

¶ 17 years.

TABLE XVIII.—Continued.
Comparative Exhibit of Rates per 1,000 persons, of Births, Marriages and Deaths, in Rhode Island and in other States and Countries. 1883-1885.

STATES AND COUNTRIES.	1883.				1884.				1885.			
	Birth rate.	Death rate.	Excess of Birth rate over Death rate.	Marriage rate.	Birth rate.	Death rate.	Excess of Birth rate over Death rate.	Marriage rate.	Birth rate.	Death rate.	Excess of Birth rate over Death rate.	Marriage rate.
RHODE ISLAND	24.1	19.1	5.0	17.8	24.0	16.1	7.9	17.5	23.1	17.7	5.4	16.3
Massachusetts.....	25.1	20.1	5.0	19.3	25.4	19.3	6.1	18.1	25.1	19.6	5.5	17.6
Connecticut.....	25.4	19.1	6.3	17.4	23.0	16.6	6.4	15.8	22.7	17.6	5.1	14.9
New Hampshire.....	17.7	15.6	2.1	20.1	18.0	17.8	0.2	19.0	18.2	17.9	0.3	18.1
Austria.....	38.2	30.1	8.1	15.7	38.4	29.2	9.2	15.7	37.4	29.9	7.5	15.2
Belgium.....	30.5	20.8	9.7	13.5	30.5	20.9	9.6	13.5	29.9	20.1	9.8	13.6
Denmark.....	31.8	18.4	13.4	15.4	33.4	18.4	15.0	15.6	32.6	17.9	14.7	15.1
England and Wales.....	32.3	19.5	12.8	15.4	32.4	19.6	12.8	15.1	32.5	19.0	13.5	14.4
France.....	24.8	22.2	2.6	15.0	24.8	22.2	2.6	15.3	24.3	22.0	2.3	14.9
Germany.....	36.7	25.9	10.8	15.4	37.3	26.0	11.3	15.7	37.1	25.7	11.4	15.8
Hungary.....	45.3	32.6	12.7	20.5	46.0	31.4	14.6	20.1	.....	.....	.....	.....
Ireland.....	23.6	19.2	4.4	8.5	24.0	17.6	6.4	9.1	23.5	18.4	5.1	8.6
Italy.....	37.1	27.5	9.6	16.0	38.7	26.7	12.0	16.4	38.1	26.6	11.5	15.8
Netherlands.....	34.3	21.8	12.5	14.2	34.9	22.2	12.7	14.4	34.4	21.0	13.4	12.2
Prussia.....	36.9	25.5	11.4	15.8	37.4	25.5	11.9	16.1	37.6	25.7	11.9	16.3
Sweden.....	28.9	17.3	11.6	12.8	30.0	17.5	12.5	12.1	29.6	17.8	11.8	13.3
Switzerland.....	28.4	20.3	8.1	13.6	28.1	20.1	8.0	13.6	27.5	21.1	6.4	13.8

No method can be devised to show by a comparative exhibit more definitely and concisely the different proportions, to the whole civil population, of the social and vital movements of the people, than is presented in Table XVIII, on the preceding pages.

The statistics are from reliable sources (see preface), and comprise the rates of vital changes in five of the New England States, and in nearly all the different governments in Europe.

An inspection of the Table will show the great disparity between the birth rates of American and European States. Of all the populations of Europe, those of Ireland and France only have had birth rates approximating those of the American States.

The highest birth rates are found in Hungary, 45.3 per 1,000 of population in 1883, and 46.0 per 1,000 in 1884. (It is stated, in a report prepared by the Bureau of Statistics of the government of Italy, that the average birth rate of Russia, for a series of years, was 49.4 per 1,000.)

A high birth rate necessarily carries with it a high death rate. Consequently it will be found that the death rate of Hungary is correspondingly high, that is, an average of 34 per 1,000, during 1881-1884.

The average excess of births over deaths, in Hungary, has been considerably less, during a series of years, than in England and Wales, and in some other European States.

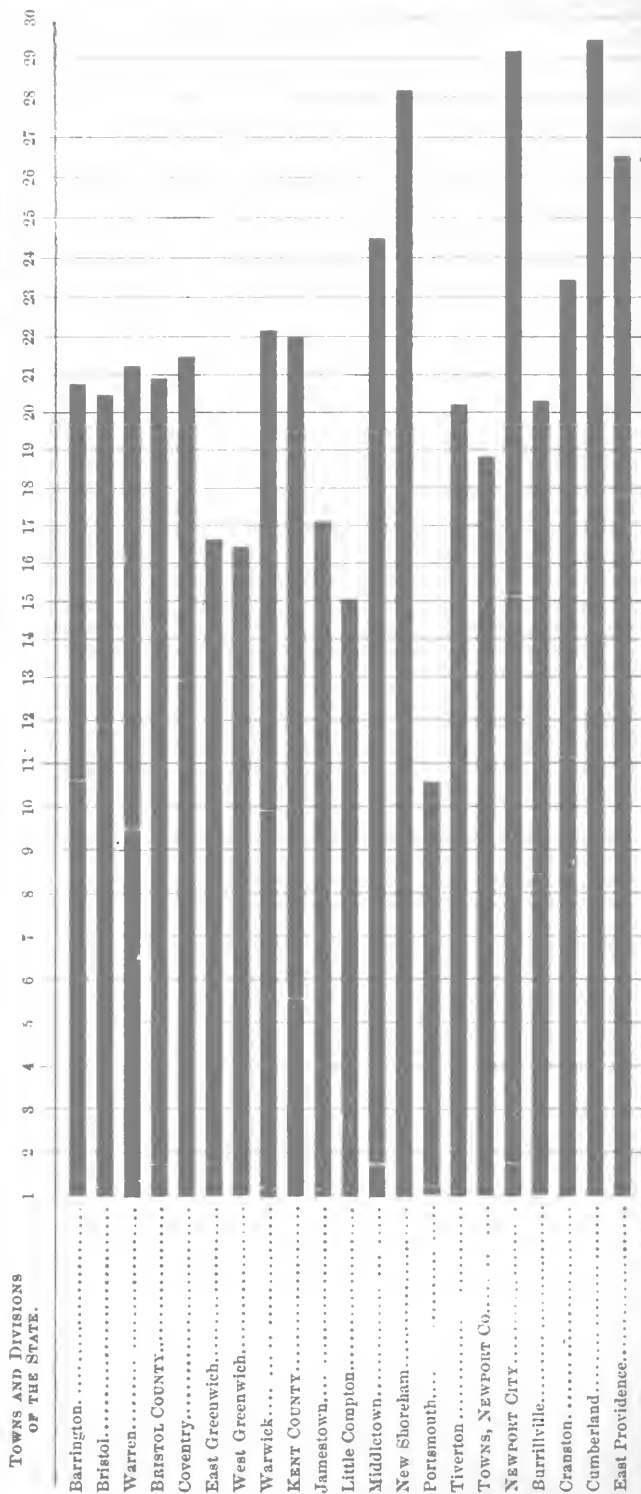
The facts presented in the Table need not be further presented at this time, but they are full of interest, and will repay a long examination.

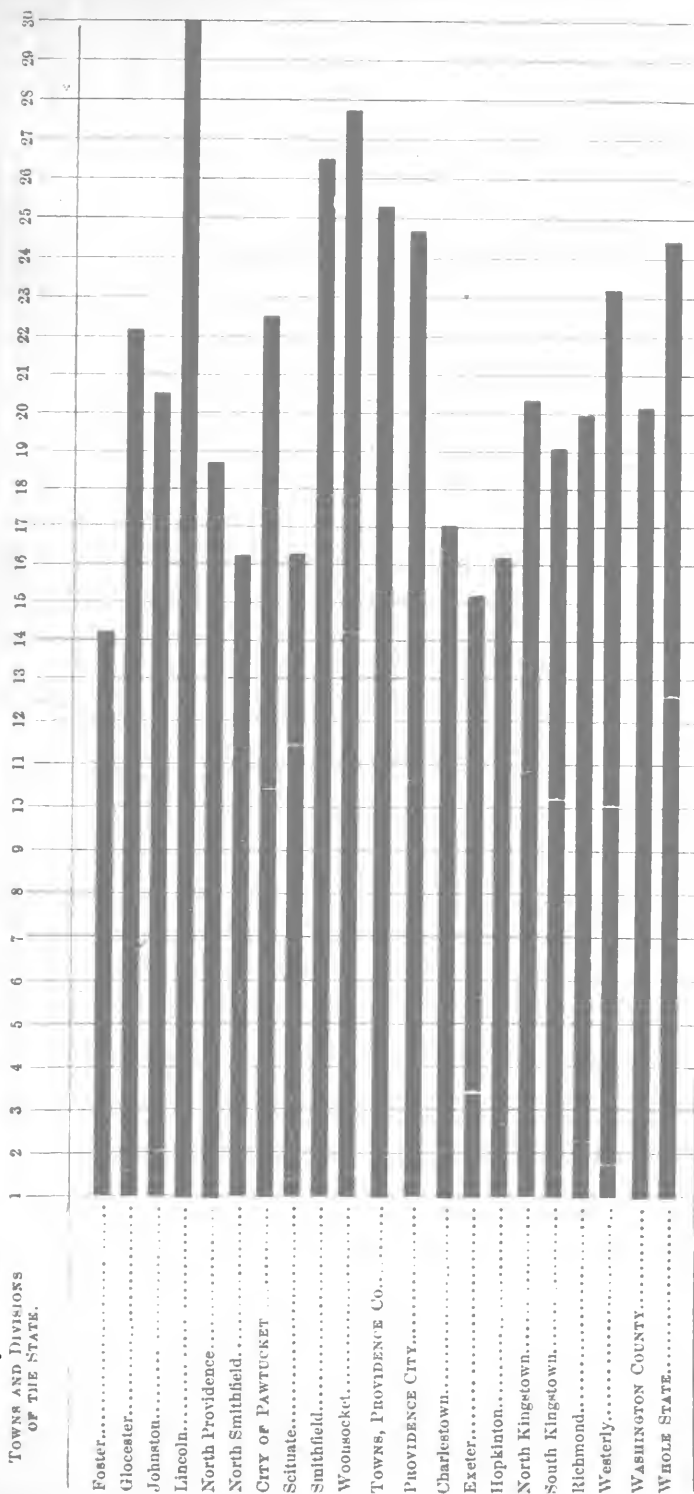


BIRTH RATES.

Diagram I.—Showing the number of births in every 1000 of the population, in each town and each county in the State, during the year 1886, computed upon the population as estimated by the town authorities.

For explanation see foot note on next page.





The figures at the top of the perpendicular lines indicate, in whole numbers, the number of births during the year in every 1000 persons. The spaces are fractional parts of one. For instance, the heavy horizontal line against Barrington reaches across about eight-tenths of the space between the perpendicular lines 20 and 21. It shows the birth rate of Barrington, in 1886, was about twenty and eight-tenths in every 1000 of the population, according to estimation.

BIRTHS, 1886.

The general statistics of births in Rhode Island, during the year 1886, derived from the returns sent to this office, may be found on pages 2 to 6, inclusive, in Tables I, II and III.

The whole number reported is 7,621, as before stated, and is 593 more than the number in 1885.

SEX OF THE CHILDREN BORN.

Of the 7,621 children whose births were reported in 1886, there were 3,897 males and 3,724 females. This gives 104.6 males to each 100 females, or 511.3 males and 488.7 females in each 1,000 children.

The following Table shows the numbers and sex, and the proportions of each sex of the children born in Rhode Island, in each of the last thirty-three years:

TABLE XIX.

Years.	Males.	Females.	Males to each		Per 1,000 Births	
			100 Females.		Males.	Females.
1854	1,081	1,003	107.8,	or	518.7	and 481.3
1855	1,492	1,421	105 0,	or	512.2	and 487.8
1856	1,479	1,407	105.1,	or	512.5	and 487.5
1857	2,057	1,948	105 6,	or	513.6	and 486.4
1858	2,200	2,053	107.2,	or	517.3	and 482.7
1859	2,209	2,097	105.3,	or	513.0	and 487.0
1860	2,263	2,212	102.3,	or	505.7	and 494.3
1861	2,531	2,291	110.5,	or	524.9	and 475.1
1862	2,152	1,967	109.4,	or	522.5	and 477.5
1863	1,892	1,288	105.8,	or	514.1	and 485.9
1864	1,949	1,942	100.3,	or	500.9	and 499.1
1865	2,096	1,857	112 9,	or	530.2	and 469.8
1866	2,546	2,356	108.0,	or	519.4	and 480.6
1867	2,665	2,464	107 0,	or	518.7	and 481.3
1868	2,745	2,627	104.5,	or	511.0	and 489.0
1869	2,685	2,560	104.9,	or	511.9	and 488.1
1870	2,679	2,536	105 6,	or	513.7	and 486.3
1871	2,878	2,800	102.8,	or	506.9	and 493.1
1872	3,085	3,058	100 9,	or	502.2	and 497.8
1873	3,135	2,887	108.6,	or	520 6	and 479.4
1874	3,311	3,155	104.9,	or	512.1	and 487.9
1875	3,362	3,146	106.9,	or	516.6	and 483.4
1876	3,291	3,038	108.3,	or	520.0	and 480.0
1877	3,163	3,072	103.0,	or	507 3	and 492.7
1878	3,402	3,312	102.7,	or	506.7	and 493.3
1879	3,259	3,091	105.4,	or	513.2	and 486.8
1880	3,241	3,054	106.8,	or	514 8	and 485.2
1881	3,498	3,263	107.2,	or	517.3	and 482.7
1882	3,509	3,316	105 8,	or	514.1	and 485.9
1883	3,548	3,498	101.4,	or	503.5	and 496.5
1884	3,713	3,592	103.4,	or	508.3	and 491.7
1885	3,591	3,437	104.4,	or	510.3	and 489.7
1886	3,897	3,724	104 6,	or	511 3	and 488.7

It will be observed with what regularity the preponderance of male births has continued, from year to year, during the whole period of registration. The rule, however, is not limited to Rhode Island, it being almost universal in civilized countries.

PROPORTION OF THE SEXES.

In Table II, on pages 4 and 5, may be found the number of the children born in the different divisions of the State, during the year, and with the number of each sex respectively.

The following Table will present, in a more concise manner, the whole number of children of each sex, and of both sexes, in each division, whose births were recorded during 1886, and also the number of males to each 100 females in the same :

TABLE XX.

BIRTHS, 1886.	Bristol County.	Kent County.	Newport County Towns.	Providence County Towns.	Washington County.	Newport City.	Pawtucket.	Providence City.	Whole State.
Males.....	132	227	85	1,100	252	203	282	1,516	3,897
Females.....	110	278	81	1,031	207	297	276	1,444	3,724
Total	242	505	166	2,131	459	600	558	2,960	7,621
Males to each 100 females.....	120.0	81.7	104.9	106.7	121.7	102.0	102.2	105.0	104.6

The large excess of male births in Bristol county is not unusual, it having maintained a proportion about as large in nearly one-half of all the years of registration, the preponderance of female births in any year seldom occurring.

The disparity in Kent county is quite noticeable; so large an excess of females over the males, born in any one year in that county, is unprecedented on the records, and but one instance has occurred in the State, during the whole period of registration, in which the difference of proportion was so great, that is, in Washington county, in 1878, the proportion then standing at 78.8 males to 100 females.

On the contrary, Washington county, in 1886, shows the largest excess of male births over the female of any division of the State.

The proportion in the whole State has varied very little during the last three years.

The following Table shows the proportions of the sexes, born during each of the last twenty-four years, in each of the larger divisions of the State, and in the whole State :

TABLE XXI.

NUMBER OF MALES TO EACH 100 FEMALES.

BIRTHS.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Providence City.	Washington County.	Whole State.
1863.....	120.0	98.4	97.0	101.8	111.4	108.7	105.8
1864.....	106.8	87.3	90.6	107.4	97.3	103.4	100.3
1865.....	119.3	118.2	108.8	118.9	113.8	88.1	112.9
1866.....	109.4	113.1	103.4	104.9	108.4	124.0	108.0
1867.....	115.5	98.3	117.8	106.3	104.5	120.4	107.7
1868.....	117.4	88.7	100.2	101.6	102.4	136.5	104.5
1869.....	115.7	116.7	102.7	98.0	107.5	120.6	104.9
1870.....	126.4	111.6	100.0	105.1	104.9	99.5	105.6
1871.....	131.8	97.9	132.5	100.8	95.2	113.3	102.8
1872.....	109.2	92.8	109.1	103.5	95.7	110.6	100.9
1873.....	129.2	113.0	117.9	104.5	109.0	104.7	108.6
1874.....	98.7	111.9	101.3	110.4	102.9	94.0	104.9
1875.....	95.2	103.1	97.7	104.3	109.1	134.3	106.9
1876.....	142.1	104.4	108.5	108.0	106.8	103.7	108.3
1877.....	138.7	102.4	98.5	100.3	104.9	95.3	103.0
1878.....	120.5	120.6	94.8	101.5	106.8	78.8	102.7
1879.....	124.3	95.5	103.6	105.4	105.7	106.3	105.4
1880.....	117.2	110.5	113.0	102.4	107.6	95.4	106.1
1881.....	91.2	111.3	102.0	105.9	109.0	115.7	107.2
1882.....	94.7	110.2	112.5	103.1	106.5	105.7	105.8
1883.....	94.0	97.6	97.0	103.5	102.2	102.2	101.4
1884.....	105.0	111.7	92.9	102.5	165.8	99.0	103.4
1885.....	132.2	107.3	98.0	104.8	103.6	104.2	104.4
1886.....	120.0	81.7	102.6	106.7	105.0	121.7	104.6

The following summary will show the average number of males to each 100 females, born during the twenty-four years from 1863 to 1886, in the different divisions of the State :

Bristol County.....	115.6 males to each 100 females.
Kent County.....	104.7 males to each 100 females.
Newport County.....	105.1 males to each 100 females.
Providence County Towns.....	104.9 males to each 100 females.
Providence City	105.2 males to each 100 females.
Washington County.....	106.9 males to each 100 females.
Whole State.....	104.8 males to each 100 females.

BIRTHS AND SEASON.

In Table II, on pages 4 and 5 of this report, may be found the whole number of births as they occurred in the different months, and in the different divisions of the State, during 1886.

An examination of that Table will show that the largest number of births in any one month was in the month of August, and the largest number, in any quarter of the year, was in the fourth quarter.

This last circumstance is in accordance with the rule of all the years of registration. The last quarter has almost invariably given the largest number of births.

The following Table shows the total number of children born in the State of Rhode Island, according to the returns, in each quarter of each of the last six years; and also the aggregate number and the percentage of the aggregate of each quarter in thirty-one years, from 1854 to 1884, inclusive:

TABLE XXII.

QUARTERS.	1886.	1885.	1884.	1883.	1882.	1881.	1854 to 1884, inc.	
							Number.	Per cent.
January—March.	1,763	1,669	1,734	1,641	1,616	1,534	38,448	23.67
April—June.	1,749	1,736	1,755	1,668	1,622	1,661	38,304	23.58
July—September.	2,041	1,768	1,868	1,893	1,711	1,746	42,457	26.14
October—December.	2,068	1,855	1,948	1,841	1,876	1,820	43,218	26.61
Whole Year.	7,621	7,028	7,305	7,046	6,825	6,761	162,427	100.00

By the above Table it will be seen that, according to the registration of thirty-one years, the average proportions of births to the whole number of births, in the different quarters of the year, were as follows:

January—March.	236.7 in every 1,000 births.
April—June.	235.8 in every 1,000 births.
July—September.	261.4 in every 1,000 births.
October—December.	266.1 in every 1,000 births.

The rule, in relation to the proportion of births by season in Rhode Island, is quite different from that in England and Wales, and also in Ireland.

In England (including Wales) the largest average number of births during forty-eight years was in the first quarter, and diminishing regularly through each of the other quarters.

The birth rates by quarters in that country, in proportion to the population, for a period of forty-eight years, very nearly corresponded to the proportions of births by quarters to the whole number of births, as follows :

	Of Population
First Quarter.....	35.5 in every 1,000
Second Quarter.....	35.2 in every 1,000
Third Quarter.....	32.9 in every 1,000
Fourth Quarter	32.7 in every 1,000

In Ireland the proportions of the births in the different quarters, to the whole number of births during a period of five years (1881-1885), were not so nearly corresponding to the proportions by population as in England and Wales.

Of population :*

First Quarter.....	24.9 per 1,000
Second Quarter.....	25.6 per 1,000
Third Quarter.....	23.2 per 1,000
Fourth Quarter.....	22.0 per 1,000

Of whole number of births :

First Quarter.....	26.0 in every 1,000
Second Quarter.....	26.8 in every 1,000
Third Quarter.....	24.2 in every 1,000
Fourth Quarter.....	23.0 in every 1,000

In Ireland, as in England, the proportions have been the largest in the two first quarters of the year (52.8 per cent.), but the second quarter has shown the largest number instead of the first, as in England and Wales.

The proportions of births in Rhode Island, in the different quarters of the year, to the whole number of births in 1886, were as follows :

1. January—March.....	23.1 per cent., or.....	231 in every 1,000
2. April—June	23.0 per cent., or . . .	230 in every 1,000
3. July—September.....	26.8 per cent., or.....	268 in every 1,000
4. October—December	27.1 per cent., or.....	271 in every 1,000
	<hr/>	
	100.0	1,000

First six months.....	461 births in every one thousand.
Second six months.....	539 births in every one thousand.

* Twenty-Third Annual Report of the Registrar General of Ireland, 1886.

BIRTHS; SEX AND SEASON.

In Table II, on pages 4 and 5, will also be found the number of births of each sex by months, as they occurred in the different divisions of the State, during the year 1886. From it we ascertain the number of each of the sexes born during each quarter of the year, with their relative proportions; and also the aggregates and proportions of the same for the whole State.

The following Table will present a summary of the quarterly periods, number of births and proportions of the sexes, for the same year :

	Males.	Females.	Males to each 100 Females.	Per 1,000, each quarter,	
				Males	Females
1. January—March.....	898.....	865.....	103.8, or.....	509	and 491
2. April—June.....	891.....	858.....	103.8, or.....	509	and 491
3. July—September.....	1,038.....	1,003.....	103.5, or.....	508	and 492
4. October—December.....	1,070.....	998.....	107.2, or ..	517	and 483
<hr/>					
Whole year, 1886.....	3,897.....	3,724.....	104.6, or.....	511	and 489

The following Table shows the number of male children born to every 100 female children, in each quarter of the last four years; and also the proportion of births of male children to each 100 female children born, during four periods of five years each, from 1866 to 1885, inclusive :

TABLE XXIII.

YEARS.	1886.	1885.	1884.	1883.	5 years,	5 years,	5 years,	5 years,
					1881-1885	1876-1880.	1871-1875.	1866-1870.
First Quarter.....	103.8	113.2	98.1	98.6	105.8	106.0	101.5	106.7
Second Quarter.....	102.8	107.1	111.4	98.7	104.8	102.7	101.7	107.3
Third Quarter.....	103.5	98.4	104.6	107.5	105.1	107.1	104.8	106.0
Fourth Quarter ..	107.2	100.1	100.1	100.2	102.5	108.2	106.5	104.8
<hr/>								
Total average.....	104.6	104.4	103.4	101.4	104.5	106.2	101.2	106.2

The following summary will show the proportions of the sexes born in the State in each quarter of the year, in the aggregate of a period of twenty years, 1866-1885 :

Males to each

100 Females.

Males. Females.

1. January—March, 105.0, or 512.2 and 487.8 in every 1,000 births.
2. April—June 104.9, or 511.9 and 488.1 in every 1,000 births.
3. July—September 105.7, or 513.9 and 486.1 in every 1,000 births.
4. October—December 105.5, or 513.4 and 486.6 in every 1,000 births.

Whole Number, 20 years 105.3, or 513.0 and 487.0 in every 1,000 births.

That the season of the year has any considerable influence in the causation of sex, seems to be negatived by the statistics presented above.

PARENTAGE.

By reference to Table I, page 2, in the division of births there will be found the parentage of the children born in Rhode Island, during the year 1886. It will be seen that of the whole number—7,621—there were 3,139 of American parentage, 3,155 foreign, and 1,327 of mixed parentage.

By mixed parentage is meant the children born of American fathers and foreign mothers, and of foreign fathers and American mothers. Of American fathers there were 652, and of foreign fathers 675.

The following Table will show the number and parentage of the children born in the State, and the variations of the same from year to year, in each of the last four years; and also the number and variations occurring in five periods of five years each, from 1858 to 1882, inclusive:

TABLE XXIV.

PARENTAGE.	1886.	1885.	1884.	1883.	5 years, 1878 to 1882.	5 years, 1873 to 1877.	5 years, 1868 to 1872.	5 years, 1863 to 1867.	5 years, 1858 to 1862.
American fath. and mo.	3,139	2,919	3,064	2,944	14,169	13,431	12,214	9,712	10,609
Foreign fath. and mo.	3,155	2,858	2,987	2,930	13,562	13,990	12,366	9,968	9,697
American fath., for. mo.	652	578	567	575	2,327	1,782	1,353	876	814
Foreign fath., Amer. mo.	675	673	687	597	2,887	2,357	1,720	941	755
Parentage not stated.								70	223
Total	7,621	7,028	7,305	7,046	34,945	31,560	27,653	21,567	22,098

The following Table of *percentages* will show, in a different and perhaps clearer way, the same changes that have occurred in the pro-

portions of the births in the different classes of parentage during the last four years; and during twenty-five years, from 1858 to 1882, inclusive, in five equal periods:

TABLE XXV.

PARENTAGE.	1886.	1885.	1884.	1883.	5 years, 1878 to 1882.	5 years, 1873 to 1877.	5 years, 1868 to 1872.	5 years, 1863 to 1867.	5 years, 1858 to 1862.
American fath. and mo.	41.19	41.53	41.94	41.78	43.03	42.55	44.17	45.18	48.50
Foreign fath. and mo.	41.40	40.66	40.90	41.58	41.23	41.35	44.72	46.37	44.33
American fath., for. mo.	8.55	8.23	7.56	8.16	6.95	5.84	4.89	4.07	3.72
Foreign fath., Amer. mo.	8.86	9.58	9.40	8.48	8.79	7.26	6.22	4.33	3.45
Total.	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

It will be noticed that the proportion of the births of children of parents of which both were born in the United States has gradually decreased, although a large number are grandchildren of the foreign born, until, during 1886, it fell below the proportion of children whose fathers were born in other countries.

The following Table will present the percentages of children born of American and of foreign born fathers, and of American and foreign born mothers, in each of the last four years, and in each of five periods of five years each, from 1858 to 1882, inclusive:

TABLE XXVI.

CHILDREN WITH	1886.	1885.	1884.	1883.	5 years, 1878 to 1882.	5 years, 1873 to 1877.	5 years, 1868 to 1872.	5 years, 1863 to 1867.	5 years, 1858 to 1862.
American fathers.	49.74	49.76	49.70	49.94	50.08	48.40	49.06	49.25	52.22
Foreign fathers.	50.26	50.24	50.30	50.06	49.92	51.60	50.94	50.75	47.78
American mothers.	50.05	51.11	51.35	50.26	51.79	49.80	50.39	49.56	51.95
Foreign mothers.	49.95	48.89	48.65	49.74	48.21	50.20	49.61	50.44	48.05

The difference between the proportions of the classes, as shown in Table XXVI, is very small, being little more than one-half of one per cent. in the case of the fathers, and one-tenth of one per cent. in the case of the mothers.

The question of the proportion of births to class population was considered quite fully in the Thirty-Third Registration Report, and

in regard to the relative aptness, capacity or disposition to bear children, as shown by the statistics, the following results were arrived at: For every 1,000 married women of all nativities there were 18.2 births; for every 1,000 in the class of American birth (whether of foreign parentage or not) there were in that class 15.1 births; and for every 1,000 in the class of foreign born there were 23.3 births.

Of the American married females 998 were colored.

BIRTHS OF COLORED CHILDREN.

The number of births of children of colored parentage reported for the year 1886 is 212. The number is larger by 13 than that of 1885.

In regard to sex, the numbers and proportions were as follows, viz: Males, 117, females, 95; or 55.19 males and 44.81 females in every 100 births; or 123 males to each 100 females.

The following summary will show the changes that have occurred from year to year, in the proportions of the sexes of colored children born in Rhode Island, during the last eleven years:

Years.	Whole Number.	Males.	Females.	Males to each 100 females.
1876.....	171.....	64.....	107.....	59.8
1877.....	168.....	86.....	82.....	104.8
1878.....	172.....	79.....	93.....	85.0
1879.....	159.....	84.....	75.....	113.5
1880.....	140.....	75.....	65.....	115.4
1881.....	192.....	101.....	91.....	111.0
1882.....	179.....	76.....	103.....	73.7
1883.....	197.....	100.....	97.....	103.1
1884.....	185.....	91.....	94.....	96.8
1885.....	199.....	93.....	106.....	87.7
1886.....	212.....	117.....	95.....	123.0

TABLE XXVII.

Showing Number, Sex, &c., of Colored Births, 1886.

TOWNS AND CITIES.	Whole Number.	Males.	Females.	COUNTIES.
Bristol.....	2	1	1	Bristol County..... 2
Coventry.....	1	1	.....
East Greenwich.....	2	1	1	
Warwick.....	2	2	.....	Kent County..... 5
Little Compton.....	1	.....	1	
New Shoreham.....	2	2	.....
Portsmouth.....	2	1	1	
Newport City.....	48	28	20	Newport County... .. 53
Burrillville.....	1	.....	1	
Cranston.....	1	1	.....
Cumberland.....	1	.....	1	
Glocester.....	1	.....	1	
Johnston.....	1	1	.....
Pawtucket.....	1	.....	1	
Woonsocket.....	2	2	.....
Providence City.....	122	63	59	Providence County ... 130
Charlestown.....	2	1	1	
Exeter.....	2	2	.....
North Kingstown.....	1	1	.....
South Kingstown.....	12	6	6	
Westerly.....	5	4	1	Washington County... 22
Whole State.....	212	117	95	..... 212

NUMBER OF CHILD OF THE MOTHER.

The following Table shows the number of the child of the mother; that is, how many of the children born were reported as the first, second or third child, etc., of their respective mothers. The statistics on this subject begin with the year 1857, and the following Table includes the children reported in 1882, 1883, 1884, 1885 and 1886, and also the total for twenty-five years, 1857 to 1881, inclusive :

TABLE XXVIII.

NUMBER OF THE CHILD OF THE MOTHER.	1882.	1883.	1884.	1885.	1886.	25 years, 1857-1881.
First.....	1,704	1,764	2,847	1,663	1,783	31,735
Second.....	1,189	1,365	1,356	1,362	1,559	26,110
Third.....	989	1,026	1,087	1,033	1,144	20,468
Fourth.....	805	822	777	767	795	15,423
Fifth.....	628	614	643	597	660	14,491
Sixth.....	481	443	472	498	481	8,530
Seventh.....	365	343	374	345	359	5,837
Eighth.....	245	245	269	282	287	2,996
Ninth.....	171	169	187	168	202	2,624
Tenth.....	93	106	103	134	131	1,711
Eleventh.....	56	64	81	73	87	984
Twelfth.....	50	37	49	57	55	602
Thirteenth.....	30	23	32	27	39	308
Fourteenth.....	12	9	16	11	19	151
Fifteenth.....	2	7	5	7	10	91
Sixteenth.....	4	2	0	1	7	49
Seventeenth.....	0	6	4	1	2	29
Eighteenth.....	1	1	2	1	1	8
Nineteenth.....	0	0	0	1	0	5
Twentieth.....	0	0	1	0	0	3
Twenty-first.....	0	0	0	0	0	3
Twenty-second.....	0	0	0	0	0	2
Total.....	6,825	7,046	7,305	7,028	7,621	129,960

There was an increase of about eight and one-half per cent. in the number of births, in 1886, over that of the previous year.

Of the first child of the mother the increase was in excess of seven per cent.; of the second child an excess of fourteen per cent.; of the third child an excess of ten per cent.; of the fourth child between four and five per cent.; and of the fifth child an excess of ten per cent.

The proportion of each class to the whole number will be shown by the following Table, which gives the percentage of the children born in each of the last six years, who were respectively the first, second, third, etc., children of the mothers, and which will also give the

average percentage of each class of births, during a period of ten years, from 1868 to 1877, inclusive, and of five years, 1878 to 1882, inclusive :

TABLE XXIX.

NUMBER OF THE CHILD.	1886.	1885.	1884.	1883.	1882.	1881.	5 years, 1878 to 1882.	10 years, 1868 to 1877.
First.....	23.40	23.66	25.28	25.03	24.96	22.92	23.1	25.2
Second.	20.45	19.38	18.56	19.37	17.42	19.31	18.7	20.7
Third.....	15.01	14.70	14.88	14.56	14.50	15.10	16.9	15.5
Fourth.....	10.43	10.91	10.64	11.66	11.80	12.07	12.2	11.4
Fifth.....	8.66	8.49	8.80	8.71	9.17	9.35	9.1	8.4
First to Fifth.....	77.95	77.14	78.16	79.33	77.85	78.75	80.0	81.1
Sixth and over.....	22.05	22.83	21.84	20.67	22.15	21.25	20.0	18.9
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.0	100.0

PLURALITY BIRTHS.

The general statistics in relation to plural births, in Rhode Island, may be found on page 6, in Table III.

There were ninety-five cases during the year, all of which were twins with the exception of one case of triplets, and making the number of one hundred and ninety-one children.

Of the 191 children of plural birth, 89 were males, and 102 were females.

The cases occurred in the different divisions of the State as follows : Bristol county, 0; Kent county, 4; Newport county towns, 3; Newport city, 10; Providence county towns, 31; Providence city, 44; Washington county, 3.

The following exhibit will show the parentage of children of plurality birth in Rhode Island, in 1886, and number of each :

Parents, native Americans, or born in the United States.	71
“ born in Ireland.....	34
“ “ France, or French Canadians.....	14
“ “ England.....	12
“ “ Scotland.....	2
“ “ Germany.....	4
“ “ Sweden.....	2
“ “ Western Islands.....	4
American father and Irish mother.....	12
American father and English mother.....	6
American father and French mother.	4
American father and German mother	2
American father and Scotch mother.....	2
French father and American mother.....	2
Irish father and American mother.....	6
Irish father and English mother	2
Irish father and Scotch mother	2
English father and Irish mother.....	4
English father and American mother	4
<hr/>	
Total.....	191

The months in which the plurality births occurred were as follows :

January.....18	April. ....10	July.....16	October .....18
February.....18	May.....11	August.....24	November.....16
March.....12	June.....16	September .....18	December.....14
—	—	—	—
* First Quarter .....48	Second Quarter ...37	Third Quarter.....58	Fourth Quarter ....48
First half of year. 85		Second half of year.....106	
Total.....191			

The general statistics of births, and number of cases reported in Rhode Island during a period of thirty-three years, that is, from 1854 to 1886, inclusive, are as follows :

173,286 cases of single births.....	giving 173,286 children.
1,863 cases of twin births.....	giving 3,726 children.
20 cases of triple births.....	giving 60 children.
1 case of quadruple births.....	giving 4 children.
<hr/>	
175,170 cases of child birth.....	giving 177,076 children.

Of the whole number of cases of child-birth (175,170) during the thirty-three years, one in 95.1 produced twins, one in 8,758 produced triplets, and one in 175,170 produced quadruplets.

Of the whole number of children born, during the same period (177,076), ascertained from the reports, one in every 47.6 was a twin, and one in every 2,958 was a triplet.

Of the 1884 cases of plurality births which have occurred in the State during the last thirty-three years, there were 792 cases in which both parents were Americans; 890 cases in which both parents were foreign; 194 cases in which the parentage was mixed, that is, one American and one foreign parent; and 8 in which the parentage was not stated.

The whole number of children born in plurality cases, during the thirty-three years, was 3,790, of whom 1,899 were males, and 1,887 were females; the sex of the remaining four was not given.

STILL-BORN.

The whole number of still-born children reported in Rhode Island, for the year 1886, was 293; this number is 22 more than for the year 1885.

The following are the numbers reported from the different divisions of the State :

Bristol County.....	4
Kent County.....	7
Newport County Towns.....	..
Newport City.....	32
Providence County Towns.....	62
City of Pawtucket.....	11
Providence City.....	174
Washington County.....	3
<hr/>	
Whole State.....	293

The following Table will give the number in each town from which still-births were reported :

TABLE XXX.

Still-Born, 1886. Locality, Number, Sex, Parentage and Color.

TOWNS AND DIVISIONS OF THE STATE.	Whole Number.*	SEX.		PARENTAGE.		COLOR.	
		Male.	Female.	American.	Foreign.	White.	Colored.
Bristol.	4	.....	4	1	3	4	.....
BRISTOL COUNTY	4	.....	4	1	3	4	.....
Coventry.....	2	2	.....	1	1	2	.....
East Greenwich.....	2	2	.....	1	1	2	.....
Warwick.....	3	1	2	2	1	3	.....
KENT COUNTY.....	7	5	2	4	3	7	.....
NEWPORT CITY.....	32	18	14	18	14	17	5
Burrillville.....	3	1	2	2	1	3	.....
Cranston.....	5	3	2	3	2	5	.....
Cumberland.....	1	.....	1	1	.....	1	.....
East Providence.....	4	1	3	2	2	4	.....
Johnston.....	5	4	1	1	4	5	.....
Lincoln.....	25	15	8	4	19	23	.....
Pawtucket.....	11	6	5	6	5	10	1
Woonsocket.....	21	15	6	11	10	21	.....
TOWNS, PROVIDENCE COUNTY.	73	45	28	30	43	72	1
PROVIDENCE CITY.....	174	89	85	86	88	162	12
Charlestown.....	1	.....	1	1	.....	1	.....
Hopkinton.....	1	.....	1	1	.....	1	.....
South Kingstown.	1	.....	1	1	.....	1	.....
WASHINGTON COUNTY.	3	.....	3	3	.....	2	.....
WHOLE STATE	293	157	136	142	151	175	18

* By mothers.

Sex.—The occurrence of a larger number of males than of females, among the still-born, is in accordance with the rule of all previous years.

SUMMARY OF SEX OF STILL-BORN.

The following Table shows the number and sex of the still-born children whose births were reported in Rhode Island, during each of the last five years, and also of a period extending from January 1, 1855, to December 31, 1885 :

TABLE XXXI.

SEX.	1886.	1885.	1884.	1883.	1882.	January 1, 1854, to Dec. 31, 1885.
Males.....	157	149	178	132	138	3,824
Females.....	136	122	94	121	115	2,674
Total.....	293	271	272	253	253	6,498

The average proportions of the sexes of the still-born, for a period of thirty-two years, were as follows: In every 100 still-births there were about 59 males and 41 females.

Season of Still-Births.—During the thirty-two years included in Table XXXI, the proportions in relation to season were as follows :

First Quarter.....	1,613	Third Quarter.....	1,743
Second Quarter.....	1,505	Fourth Quarter.....	1,637
First half of the year.....	3,118	Last half of the year.....	3,380
Total.....	6,498		

PARENTAGE OF THE STILL-BORN.

Of the 293 still-born children reported in 1886, there were 139 of American, and 154 of foreign parentage, reckoned by the nativity of the fathers, that is, the father's name given; and 142 of American and 151 of foreign, reckoned by the nativity of the mothers.

To show the changes that have occurred, from year to year, in the percentages of parentage of *the still-born*, reckoning by the parentage

of the mothers, in contrast with the percentages of the same nativities to the *whole number of births*, reckoned by the parentage of the father, the following resumé, for various years and periods of years, is presented :

Years.	Of Whole Number Births.		Of Whole Number Still-Born.	
	American.	Foreign.	American.	Foreign.
14 years,				
1859-1872.....	50.54 and 49.46 in each 100.....		51.84 and 48.16 in each 100.....	
10 years,				
1873-1882.....	49.10 and 50.90 in each 100		51.84 and 48.16 in each 100.....	
1880.....	50.17 and 49.83 in each 100.....		54.16 and 45.84 in each 100.....	
1881.....	49.60 and 50.40 in each 100.....		48.10 and 51.90 in each 100.....	
1882.....	50.21 and 49.79 in each 100.....		50.58 and 49.41 in each 100.....	
1883.....	49.94 and 50.06 in each 100		50.98 and 49.02 in each 100.....	
1884.....	49.91 and 50.09 in each 100.....		49.63 and 50.37 in each 100.....	
1885.....	49.76 and 50.24 in each 100.....		48.00 and 52.00 in each 100.....	
1886.....	49.74 and 50.26 in each 100.....		47.44 and 52.56 in each 100.....	

ILLEGITIMATES. 1886.

The following Table will exhibit the number, sex, color, parentage and locality of birth of illegitimates in Rhode Island, in 1886:

TABLE XXXII.

TOWNS.	Whole Number.	SEX.		COLOR.		PARENTAGE.		Alms-houses or Penal Institutions.
		Males.	Females.	Black.	White.	American.	Foreign.	
Coventry.....	1	.....	1	.....	1	1	.....	.....
East Greenwich.....	1	.....	1	1	.....	1	.....	.....
Middletown.....	1	.....	1	.....	1	.....	1	.....
Portsmouth.....	1	1	.....	.....	1	1	.....	.....
Tiverton.....	1	1	.....	.....	1	1	.....	.....
Newport City.....	12	8	4	6	6	11	1	.....
Providence City.....	24	12	12	4	20	18	6	6
Cranston.....	7	5	2	.....	7	3	4	6
North Smithfield.....	1	1	.....	.....	1	1	.....	.....
Pawtucket.....	1	.....	1	.....	1	.....	1	.....
Scituate.....	2	1	1	.....	2	2	.....	.....
Woonsocket.....	4	3	1	.....	4	1	3	.....
Exeter.....	3	3	.....	2	1	3	.....	.....
Hopkinton.....	1	1	.....	.....	1	1	.....	.....
North Kingstown.....	1	.....	1	.....	1	1	.....	.....
South Kingstown.....	3	2	1	2	1	3	.....	.....
Whole State.....	64	38	26	15	49	48	16	12

There were returns, during 1886, of 64 children of illegitimate parentage. The number is 24 more than that of 1885.

Sex.—Of the 64 there were 38 males and 26 females.

The proportions of the sexes were at the rate of about 60 males and 40 females in each 100 births, or 146 males to every 100 females.

Color.—Of the 64 illegitimates born during 1886, 49 were white and 15 were colored.

Parentage.—Of the 64, 48 were born of American mothers and 16 of foreign born mothers. The colored illegitimates were of American parentage. There were, of the 49 white illegitimates, 33 born of American mothers, and 16 of foreign born mothers.

The parentage given is of native born and foreign born, that is, mothers born in the United States of foreign born parents are reckoned as of American parentage.

Twelve, or nearly one-fifth of the illegitimates, were born of pauper or criminal mothers, in public, charitable or penal institutions.

MARRIAGES, 1886.

The number of marriages reported in Rhode Island during the year 1886 was 2,750. This number is 192 more than in 1884, and 262 more than in 1885.

The general statistics of marriage in 1886, in relation to season and number in the different divisions of the State, may be found in Table IV, on the seventh page.

The statistics in relation to the proportion to population of persons married in 1886, in each of the towns and general divisions of the State, may be found in Tables XV and XVI, on pages 63 and 65.

The following Table will present the general statistics of marriages, and the ratio of marriage to population, in each year for a period of twenty-seven years, 1860 to 1886, inclusive :

TABLE XXXIII.

YEARS.	Number Marriages.	Of population, one person married in every	Persons married pr 1,000 of population.	YEARS.	Number Marriages.	Of population, one person married in every	Persons married pr 1,000 of population.
1860	1,748	50.0	20.0	1876	2,253	57.3	17.5
1861	1,533	56.8	17.6	1877	2,282	56.6	17.7
1862	1,450	61.1	15.1	1878	2,324	55.7	17.9
1863	1,618	54.7	18.3	1879	2,396	57.8	17.5
1864	1,844	50.1	19.9	1880	2,769	49.9	20.0
1865	1,896	48.7	20.5	1881	2,750	50.3	19.9
1866	2,318	39.9	25.1	1882	2,634	52.5	19.0
1867	2,344	39.8	25.1	1883	2,611	54.4	18.3
1868	2,285	40.5	24.8	1884	2,558	58.1	17.2
1869	2,289	47.5	21.1	1885	2,488	61.3	16.3
1870	2,362	46.0	21.7	1886	2,750	56.5	17.7
1871	2,336	46.5	21.5	Annual Average . . .		50.0	20.0
1872	2,537	42.9	23.2				
1873	2,630	41.3	24.2				
1874	2,541	50.8	19.6				
1875	2,485	52.0	19.2				

SEASON.

The following Table will show the number and percentage of marriages in Rhode Island, in each quarter of the year 1886, together with the aggregate number and percentage in each quarter for thirty years, viz., from 1854 to 1885, inclusive :

TABLE XXXIV.

MONTHS.	Number of Marriages each month.	Number of Marriages each Quarter, 1886.	Percentage of each Quar. to total Marriages, 1886.	Number of Marriages per Quarter, 32 yrs, 1854-1885.	Percentage each Quarter, 32 years.
January.....	202	1st Quarter... 594	21.60	1st Quarter... 15,073	22.20
February.....	202				
March.....	190				
April.....	185	2d Quarter.... 668	25.30	2d Quarter.....	24.92
May.....	230				
June.....	253				
July.....	202	3d Quarter.... 696	24.30	3d Quarter... 15,801	23.27
August.....	213				
September.....	281				
October.....	276	4th Quarter... 792	28.80	4th Quarter... 20,099	29.61
November.....	317				
December.....	199				
Entire year.....		2,750	100.00	67,894	100.00

The largest number of marriages, in any one month during 1886, occurred in the month of November. This is in accordance with the rule for thirty-three years.

There was an agreement with the rule, also, in the proportions of the number of marriages, in the different quarters of the year, to the whole number during the year. The rule has been as follows: The largest proportion in the last quarter; the next largest in the second quarter; followed by the third quarter; and, finally, the first quarter the smallest in proportion.

During 1886 the proportions in the different quarters, from the largest to the smallest, were as follows: Last quarter, 28.80 per cent.; second quarter, 25.30 per cent.; third quarter, 24.30 per cent.; first quarter, 21.60 per cent.

NATIVITY OF PERSONS MARRIED.

The following Table shows the *number* of marriages, according to the nativities of the parties, for each of the last five years, and also

for the aggregate of five years, from 1878 to 1882, inclusive, and of twenty years, from 1858 to 1877, inclusive:

TABLE XXXV.

BIRTH-PLACE.	1886.	1885.	1884.	1883.	1882.	5 years, 1878-1882. Total.	20 years, 1858-1877. Total.
United States.....	1,480	1,374	1,410	1,428	1,500	7,878	25,674
Foreign countries.....	739	677	668	709	659	2,790	10,963
American groom, foreign bride.....	290	236	257	237	242	1,078	2,410
Foreign groom, American bride.....	241	201	223	237	233	1,126	2,750
Not stated.....							64
Total.....	2,750	2,488	2,558	2,611	2,634	12,873	41,861

There was an increase in the number of marriages, in 1886, in every class of nativity, over any year since 1882, and over any previous year in all classes except that of which both were natives of the United States.

In the following Table are given the *percentages* of American, foreign and mixed marriages, in each of the last five years, and in the aggregate of five years, 1878 to 1882, inclusive, and of twenty years, 1858 to 1877, inclusive:

TABLE XXXVI.

BIRTH-PLACE.	1886.	1885.	1884.	1883.	1882.	5 years, 1878-1882.	20 years, 1858-1877.
United States.....	53.81	55.22	55.12	54.69	56.95	61.25	61.38
Foreign countries.....	26.87	27.21	26.12	27.15	25.02	21.63	26.19
Mixed.....	19.32	17.57	18.76	18.16	18.03	17.12	12.48
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00

While, as will be seen in Table XXXV, the absolute number of marriages was larger in 1886, in all classes, than in 1885, the *percentages* to the whole number of marriages was less, in both the native and the foreign, the percentage of increase falling in the class of mixed nativity, as will be seen in Table XXXVI.

AGES OF PERSONS MARRIED.

The number of persons married in Rhode Island, during the year 1886, in the different periods of life, is shown in Table V, on page eight. The number of each sex, in each division of age, can also be found in the following Table:

TABLE XXXVII.

1886.	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 to 85.	85 to 90.	Not stated.
Males	69	967	878	356	184	118	69	52	18	16	17	5	1	.....	.....	.....
Females.....	436	1,166	674	247	99	56	34	21	6	10	1	.....	.....	.....	.....	.....
Total persons	505	2,133	1,552	603	283	174	103	73	24	26	18	5	1	.....	.....	.....

The disparities of age, between the groom and bride, were not so extreme in any case, in 1886, as in some previous years. Two grooms, aged 65 and 68 years, married brides of 24 and 22 respectively; and one groom, 66 years of age, took a bride aged 26 years.

One bride, of 57 years, took a husband aged 33 years; four brides took for husbands grooms from 12 to 14 years younger than themselves.

The whole number of persons, in each division of ages, of both sexes, married in Rhode Island, in each of the last twenty-one years, that is, from 1866 to 1886, inclusive, is presented in the following Table:

TABLE XXXVIII.

YEARS.	Under 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 to 85.	85 to 90.	Not stated.
1866.....	693	1,931	1,025	419	213	127	81	59	25	21	12	1	....	....	....	23
1867.....	696	1,886	1,104	416	211	148	91	48	37	18	18	5	3	1	....	9
1868.....	644	1,835	1,050	432	219	133	82	61	30	29	11	8	4	....	....	32
1869.....	642	1,814	1,051	468	227	134	79	46	35	15	11	2	3	2	....	49
1870.....	744	1,883	1,084	415	216	159	86	64	26	24	12	3	2	....	....	6
1871.....	697	1,914	1,118	392	228	115	73	56	35	22	6	7	3	....	....	6
1872.....	786	2,073	1,182	434	237	131	81	61	43	21	13	6	1	....	....	5
1873.....	762	2,177	1,156	507	253	140	87	68	35	24	12	6	6	....	....	27
1874.....	770	1,992	1,179	459	268	159	101	52	36	39	8	9	1	....	....	9
1875.....	681	2,058	1,108	475	252	150	101	60	32	29	13	4	1	....	....	6
1876.....	691	1,741	1,041	450	224	154	80	53	27	19	12	1	2	....	....	9
1877.....	631	1,745	1,118	459	244	125	92	52	46	14	15	11	2	1	....	9
1878.....	618	1,832	1,123	441	259	162	74	49	39	20	17	2	4	....	....	8
1879.....	639	1,879	1,156	481	272	123	78	56	39	26	18	9	2	2	1	11
1880.....	688	2,301	1,262	556	329	163	91	65	33	27	15	3	3	1	....	1
1881.....	599	2,208	1,410	547	298	187	107	54	34	31	16	5	1	1	....	2
1882.....	498	2,125	1,377	563	301	161	102	57	36	27	11	5	3	2	....	....
1883.....	497	2,108	1,370	486	319	183	115	73	31	20	14	3	2	1	....	....
1884.....	484	2,027	1,289	569	307	152	114	64	48	30	23	6	3	....	....	....
1885.....	438	1,973	1,296	540	309	163	102	57	45	27	13	7	3	....	1	2
1886.....	505	2,133	1,552	603	283	174	103	73	24	26	18	5	1	....	....	....

Previous to 1886 the number of persons married, who were under twenty years of age, had been gradually lessening every year for twelve years, notwithstanding the increase of population. The increase in 1886, however, was only three-tenths of one per cent., in the whole number of marriages.

The following summary will show the number of persons married, the number of persons married under twenty years of age, and the percentages of marriages of persons under twenty years of age, during two periods of five years each, that is, from 1870 to 1874, inclusive, and from 1880 to 1884, inclusive, and during the years 1885 and 1886:

	Whole Number of persons married.	Number married under twenty years of age.	Percentage of persons married under twenty years of age.
1870 to 1874.....	24,812.....	3,759.....	15.2
1880 to 1884.....	26,644.....	2,766.....	10.4
1885-1886.....	10,476.....	943.....	9.0

The proportion of persons, under twenty years of age, who were married during 1886, was 9.1 per cent. of the whole number of persons married during the same year.

The lessening proportions of persons under twenty years of age, who assume the obligations of marriage, may also be shown by taking several years at random, as shown in the following exhibit:

Years.	Married under 20 years of age.
1870.....	15.9 per cent. of whole number.
1872.....	15.5 per cent. of whole number.
1876.....	15.3 per cent. of whole number.
1880.....	12.4 per cent. of whole number.
1883.....	9.5 per cent. of whole number.
1884.....	9.4 per cent. of whole number.
1885.....	8.8 per cent. of whole number.
1886.....	9.1 per cent. of whole number.

PROPORTION OF SEX.

The following Table will show the percentages of MALES married, in each division of ages, in each of the last twenty-seven years :

TABLE XXXIX.

	YEARS.	Under 20	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 & over.	Total.
MALES.	1860.....	5.0	42.8	26.9	16.3	5.7	3.3	100.0
	1861.....	4.6	44.5	25.4	15.5	5.8	4.2	100.0
	1862.....	4.2	37.8	27.9	18.3	5.9	5.9	100.0
	1863.....	3.5	38.0	29.6	17.2	5.8	5.9	100.0
	1864.....	4.3	38.8	27.3	17.9	7.4	4.3	100.0
	1865.....	3.5	37.0	28.4	18.9	7.5	4.7	100.0
	1866.....	5.3	40.9	27.0	16.4	6.3	4.1	100.0
	1867.....	4.3	40.1	27.9	16.8	6.8	4.1	100.0
	1868.....	4.1	39.9	28.2	17.1	6.1	4.6	100.0
	1869.....	4.3	39.6	27.7	18.5	6.1	3.8	100.0
	1870.....	4.8	40.4	28.1	16.0	6.4	4.3	100.0
	1871.....	5.3	40.1	28.9	16.5	4.9	4.3	100.0
	1872.....	4.3	41.3	28.2	16.6	5.2	4.4	100.0
	1873.....	3.8	42.4	26.7	17.0	6.0	4.1	100.0
	1874.....	4.1	40.4	27.2	17.5	6.4	4.4	100.0
	1875.....	3.5	40.9	27.8	17.6	6.1	4.2	100.0
	1876.....	5.1	37.5	28.6	17.9	5.6	4.3	100.0
	1877.....	4.3	36.0	30.2	18.7	5.9	6.9	100.0
	1878.....	3.9	38.5	29.0	18.0	6.3	4.3	100.0
	1879.....	3.9	37.8	28.8	19.3	5.4	4.8	100.0
	1880.....	3.6	38.9	27.5	19.9	5.8	4.3	100.0
	1881.....	2.8	37.2	29.7	19.5	6.8	4.0	100.0
	1882.....	2.2	36.0	31.4	20.0	6.1	4.3	100.0
	1883.....	2.9	36.2	31.7	17.7	7.2	4.3	100.0
	1884.....	2.5	36.2	29.1	21.0	6.2	5.0	100.0
	1885.....	2.6	34.7	30.2	20.9	6.8	4.8	100.0
	1886.....	2.5	35.2	31.9	19.6	6.8	4.0	100.0

The following Table will show the percentages of FEMALES married, in each division of ages, in each of the last twenty-seven years:

TABLE XL.

YEARS.	Under 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 & over.	Total.
1860.....	25.8	44.1	17.0	9.1	2.6	1.4	100.0
1861.....	29.6	42.0	15.2	7.8	4.1	1.3	100.0
1862.....	24.9	41.3	16.7	11.8	4.1	1.2	100.0
1863.....	24.9	42.6	16.9	9.8	4.1	1.7	100.0
1864.....	24.2	43.4	17.8	10.3	2.9	1.4	100.0
1865.....	22.6	43.3	19.1	11.0	3.5	1.5	100.0
1866.....	24.7	42.9	17.4	11.0	2.7	1.3	100.0
1867.....	25.4	40.5	19.3	10.0	3.4	1.4	100.0
1868.....	24.4	40.9	18.1	11.6	3.3	1.7	100.0
1869.....	24.1	40.5	18.7	12.1	3.4	1.2	100.0
1870.....	26.8	39.4	17.9	10.8	3.9	1.2	100.0
1871.....	24.6	41.9	19.1	10.1	3.1	1.2	100.0
1872.....	26.7	40.5	18.4	9.9	2.2	1.3	100.0
1873.....	25.3	40.8	17.5	12.0	2.7	1.7	100.0
1874.....	26.3	38.1	19.3	11.1	3.9	1.3	100.0
1875.....	23.9	42.1	16.8	11.8	4.0	1.4	100.0
1876.....	25.6	39.8	17.6	12.0	3.7	1.3	100.0
1877.....	23.4	40.4	18.8	12.1	3.6	1.7	100.0
1878.....	22.7	40.4	19.3	12.2	3.8	1.6	100.0
1879.....	22.8	40.7	19.4	12.1	3.0	2.0	100.0
1880.....	21.1	44.2	18.0	12.0	3.3	1.4	100.0
1881.....	19.0	43.0	21.5	11.2	3.8	1.5	100.0
1882.....	16.7	44.8	20.9	12.6	3.9	1.1	100.0
1883.....	16.2	44.2	20.6	13.2	4.3	1.5	100.0
1884.....	16.4	43.0	21.3	13.2	4.2	1.9	100.0
1885.....	14.9	44.6	21.8	13.2	3.8	1.7	100.0
1886.....	15.8	42.4	24.5	12.5	3.3	1.5	100.0

It will be noticed, in the preceding Tables, that the proportions of persons married of both sexes, under twenty years of age, have largely decreased during the last two decades.

Of males, the proportion has decreased about 50 per cent., and of females about 40 per cent.

The proportion of males married, between the ages of twenty and

twenty-five, has also decreased about 17 per cent., while the marriage of males between twenty-five and forty has correspondingly increased.

Of females, the proportion of marriages, between twenty and twenty-five years of age, has not materially changed, while between twenty-five and forty the proportion, like that of the males, has very largely increased.

In neither sex has the proportion of those married, above the age of forty, had any material change.

NUMBER OF TIMES MARRIED.

The following Table will give the number of each party who were married for the first, second, third, etc., time, in 1886 :

TABLE XLI.

	First Marriage.	Second Marriage.	Third Marriage.	Fourth Marriage.	Fifth Marriage.
Grooms.....	2,228	459	58	4	1
Brides.....	2,404	318	27	1	.....

The proportion of *grooms* married for the first time, in 1886, was 81.02 per cent. of the whole number, and the proportion of *brides* married for the first time was 87.80 per cent.

MARRIAGES OF PERSONS OF COLOR.

The number of marriages of persons of color, in Rhode Island, in 1886, was 91. This includes seven marriages in which one of the parties was white. The number and color of the individuals were, therefore, 175 persons of color and 7 persons white. The white persons were 2 males and 5 females. The marriages, however, may be properly classed as colored marriages.

The number reported during 1886, from the different towns, was as follows, viz.:

Providence (including 4 white brides).....	60	
Newport (including 2 white grooms)	18	
South Kingstown.....	3	
East Greenwich (including 1 white bride)	2	
Hopkinton.....	2	
Westerly.....	2	
Warwick,	} 1 each.....	4
New Shoreham,		
East Providence,		
Johnston,		
Total.....		91

MARRIAGES OF THE DIVORCED.

The following Table will give the names of the towns from which returns of marriage with the facts of divorce were reported, during 1886, the whole number of divorced persons married, also whether the second or third marriage of the divorced groom or bride, and number of re-marriages of same persons :

TABLE XLII.

TOWNS.	Whole Number.	Groom.	Bride.	Second Marriage of Groom.	Third Marriage of Groom.	Second Marriage of Bride.	Third Marriage of Bride.	Remarriages, Same Parties.
Providence.....	86	47	39	42	5	38	1	.....
Westerly.....	8	3	5	3	.....	5	.....	.....
Cranston.....	5	3	2	3	.....	2	.....	.....
Woonsocket.....	2	.....	2	.....	.....	2	.....	.....
Total State	101	53	48	48	5	47	1	.....

DIVORCES, 1886.

According to the returns made to the Secretary of the State Board of Health, by the clerks of the Supreme Courts of the different counties in Rhode Island, the number of applications for divorce, during 1886, was three hundred and thirty-six (336).

The number of divorces granted, during 1886, was two hundred and fifty-seven (257).

There were forty-three more applications, during 1886, than during the preceding year, and the number of divorces granted was thirty more.

Divorces are decreed for the following seven statute causes, viz.:

1. Adultery.
2. Extreme cruelty.
3. Wilful desertion for five years of either of the parties, or for a shorter period in the discretion of the court.
4. Continued drunkenness.
5. Neglect or refusal to provide necessaries (having ability) for the subsistence of a wife.
6. Gross misbehavior and wickedness other than aforesaid.
7. Impotency.

Divorces are also decreed, in the discretion of the court, for ascertained affinity, consanguinity, idiocy, insanity, penitentiary crimes, and illegal marriage.

The following Table shows the number of applications for divorce, and the number granted, in 1886, in each county of the State: also the causes alleged for the applications:

TABLE XLIII.

COUNTIES.	Number of Applications.	Number Granted.	CAUSES ALLEGED.							Total Causes Alleged.
			Adultery.	Extreme Cruelty.	Willful Desertion.	Continued Drunkenness.	Neglect to Provide Necessaries, &c.	Other Gross Misbehavior.	Insanity at time of Marriage.	
Bristol.....	7	5	...	1	3	1	5	3	.....	13
Kent.....	24	17	5	.....	16	.....	3	.....	.....	24
Newport.....	22	15	4	10	14	4	11	.....	.....	44
Providence.....	252	194	48	70	153	55	163	33	.....	524
Washington.....	31	26	4	9	19	5	17	.....	.....	54
Whole State.....	336	257	61	90	205	65	199	36	.....	659

The clerk of the Supreme Court in Washington county observes, "It is impossible to set out the precise ground upon which *alone* the decrees are granted, as the records show many different grounds in almost every case."

This is quite true, although, as may be noticed in the Table above, the report from Kent county gives only the allegations, assumed or known (one only in each case), which were the grounds upon which the decrees were granted.

There were, during the year 1886, three hundred and thirty-six (336) applications for divorce, and the whole number of causes alleged was six hundred and fifty-eight (658). There were, therefore, an average of about two causes alleged in each application. That average is not far from the rule of many years.

The causes alleged why divorce should be granted, in the applications during 1886, were 74 more in number than in 1885, but as the number of applications was larger, the average proportion of causes to each application remained the same.

In order to show the actual number of applications, and the number of divorces granted in each of the last fourteen years, the following summary is presented :

	Applications for Divorce.	Divorces Granted.	Applications refused or continued or withdrawn.
1873.....	261.....	173.....	88
1874.....	276.....	242.....	34
1875.....	227.....	158.....	69
1876.....	254.....	196.....	58
1877.....	257.....	178.....	79
1878.....	258.....	196.....	58
1879.....	255.....	246.....	9
1880.....	347.....	273.....	74
1881.....	350.....	268.....	82
1882.....	339.....	271.....	68
1883.....	321.....	257.....	64
1884.....	320.....	266.....	54
1885.....	293.....	227.....	66
1886.....	336.....	257.....	70
<hr/>			
14 years, total.....	4,094.....	3,208.....	886

During the last fourteen years the proportion of decrees of divorce, to whole number of applications, was 78.1 per cent. During 1883 it was 80 per cent., during 1885 it was 83.0 per cent., during 1885 it was 78.5 per cent., and during 1886 it was 76.5 per cent.

The proportion of *divorces granted*, in 1886, to the whole number of marriages during the same year, was *one divorce* to every ten and seven-tenths marriages.

The proportion of *applications for divorce* to whole number of marriages, during the year, was *one application* to every eight and two-tenths marriages.

The following Table shows the number of divorces granted in each county, and in the whole State, in each of the last eighteen years, and the proportion of marriages to each divorce granted in each year:

TABLE XLIV.

YEARS.	Bristol County.		Kent County.		Newport County.		Providence County.		Washington County.		Whole State.	
	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.	Divorces Granted.	Marriages to one Divorce.
1869.....	10	10.6	15	12.5	6	27.7	120	13.8	11	15.5	162	14.1
1870.....	3	27.7	18	11.8	6	26.3	152	11.3	21	9.3	200	11.8
1871.....	5	16.8	11	17.9	4	49.7	123	13.3	18	11.4	161	14.5
1872.....	8	10.2	13	15.7	8	22.9	149	12.6	22	8.9	200	12.7
1873.....	6	16.2	22	9.8	8	21.9	131	14.8	6	33.7	173	15.2
1874.....	10	8.9	20	8.0	6	29.0	190	10.0	16	11.6	242	10.5
1875.....	2	50.0	18	8.8	7	23.4	120	14.9	11	20.5	158	15.7
1876.....	6	14.5	15	12.8	7	20.5	148	11.1	20	8.8	190	11.5
1877.....	7	12.0	9	16.3	7	26.0	134	12.4	21	9.9	178	12.8
1878.....	4	26.0	11	13.3	13	12.8	156	10.9	12	17.3	196	11.9
1879.....	5	18.8	19	9.0	7	24.1	195	9.1	20	9.7	246	9.7
1880.....	8	12.1	23	9.4	11	17.6	208	9.7	23	17.0	273	10.1
1881.....	6	20.1	26	7.3	10	16.9	207	10.0	19	11.0	268	10.4
1882.....	6	15.0	18	10.3	15	13.0	221	8.9	11	16.2	271	9.7
1883.....	6	15.8	15	11.5	9	21.2	214	9.2	13	13.3	257	10.2
1884.....	4	16.7	20	8.0	12	15.7	209	9.3	21	8.2	266	9.6
1885.....	3	23.0	9	18.6	17	11.2	186	10.1	12	15.0	227	11.0
1886.....	5	16.0	17	11.0	15	12.3	194	10.9	26	7.3	257	10.7

The ratio of divorces granted in the entire State, during 1886, to the whole number of marriages during the same year, was one divorce to every ten and seven-tenths marriages, as previously stated.

During the ten years 1869 to 1878, inclusive, the ratio of divorce to number of marriages was one divorce to every thirteen; during the six years 1879 to 1884, inclusive, the ratio was one divorce to every nine and nine-tenths marriages.

The average of the last two years was one divorce to every ten and eight-tenths marriages.

The large ratio of divorce to marriage, in Washington county (one to every seven and three-tenths), has never been exceeded, and only equalled once (in Kent county in 1881) during the whole period of registration.

During the sixteen years preceding 1885 the average proportions of divorce to marriage, in the several counties and the State, have been as follows :

Bristol County.....	One divorce to every 18.5 marriages.
Kent County.....	One divorce to every 11.3 marriages.
Newport County.....	One divorce to every 23.0 marriages.
Providence County.....	One divorce to every 11.3 marriages.
Washington County.....	One divorce to every 13.7 marriages.
Whole State.....	One divorce to every 11.9 marriages.

The following Table will show the Number of Marriages to every Decree of Divorce, in five of the New England States, during the years from 1876 to 1886, inclusive:

TABLE XLV.

STATES.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.
Rhode Island.....	11.5	12.8	11.9	9.7	10.1	10.4	9.7	10.2	9.6	11.0	10.7
Massachusetts.....	24.2	23.1	21.4	23.4	26.8	40.9	34.3	27.8	28.2	26.4	30.0
Connecticut.	10.9	10.1	10.7	13.4	13.9	11.6	12.8	12.1	14.9	13.3	.....
Vermont.....	16.0	15.0	14.0	21.0	20.0	16.0	17.8	16.4	.....	.....	.....
*New Hampshire.....	.....	.....	.....	.....	7.7	9.2	10.9	12.8	10.4	10.9	.....

* Marriage statistics in New Hampshire, previous to 1880, incomplete.

DEATHS, 1886.

The number of deaths registered in Rhode Island, during 1886, according to the returns made to the State Registrar, was five thousand, eight hundred and forty-nine (5,849).

This number is larger by 460 than that of the year 1885, and an increase of 708 over that of 1884. It is the largest ever recorded in the State.

The death rate (eighteen and eight-tenths in every 1,000 living persons) was about one and one-tenth in excess of that of the previous year, and about one and three-tenths in excess of the census year, 1880.

The following summary will show the death rates per 1,000 for each of the last six census years, in comparison with that of 1886:

1860.	1865.	1870.	1875.	1880.	1885.	1886.
15.4.....	18.4	14.9.....	16.7.....	17.5.....	17.7.....	18.8

On the following page will be found the death rates, by counties, for twenty-seven years:

TABLE XLVI.

Death rates per 1,000 living, by counties, in each of twenty-seven years, from 1860 to 1886, inclusive; also the average rate of each period of five years each, from 1860 to 1884, inclusive, for the whole State.

YEARS.	Bristol.	Kent.	Newport.	Providence.	Washington.	State.	STATE.
							ANNUAL AVERAGE OF FIVE-YEAR PERIODS, 1860-1884.
1860.....	16.4	13.7	13.7	17.7	12.6	15.4	16.5 per 1,000 living.
1861.....	18.9	17.5	16.9	16.9	14.1	16.8	
1862.....	13.8	14.6	13.1	15.1	10.6	14.3	
1863.....	13.0	13.0	27.5	18.9	10.5	18.1	
1864.....	20.2	18.1	19.6	18.5	12.8	18.1	
1865.....	22.8	16.1	17.5	19.2	14.2	18.4	16.5 per 1,000 living.
1866.....	19.2	14.2	17.3	16.6	11.4	16.1	
1867.....	17.0	15.1	15.0	16.4	10.9	15.6	
1868.....	15.7	13.7	14.7	17.0	10.4	15.7	
1869.....	17.9	16.7	13.2	16.0	12.8	15.6	
1870.....	15.5	13.5	14.1	15.5	12.0	14.9	17.2 per 1,000 living.
1871.....	16.3	17.5	12.2	15.9	12.3	15.4	
1872.....	21.1	16.1	14.5	21.2	14.7	19.1	
1873.....	18.4	13.8	19.0	22.0	15.1	20.2	
1874.....	14.7	13.2	10.8	17.7	13.7	16.3	
1875.....	14.9	14.9	13.5	17.5	15.5	16.7	16.6 per 1,000 living.
1876.....	14.7	11.7	13.5	16.8	15.9	15.9	
1877.....	18.2	13.1	12.4	18.7	12.8	17.2	
1878.....	17.5	14.2	13.7	18.3	13.0	17.2	
1879.....	13.2	15.1	14.8	17.2	11.1	16.2	
1880.....	19.2	14.9	14.5	18.5	12.7	17.5	18.0 per 1,000 living.
1881.....	17.9	16.5	15.7	19.3	11.9	18.1	
1882.....	16.5	15.3	17.2	19.7	11.0	18.4	
1883.....	17.7	14.6	17.7	20.8	9.8	19.1	
1884.....	17.7	17.1	14.5	17.8	12.6	16.9	
1885.....	16.3	16.4	14.5	18.5	14.0	17.7	17.0 per 1,000 living.
1886.....	19.2	17.5	15.0	19.2	15.0	18.8	

Annual average, twenty-five years.....17.0 per 1,000 living.

SEX OF DECEDENTS.

Of the 5,849 persons whose deaths were returned, during the year 1886, 2,833 were males, and 3,016 were females; the ratio standing at 93.9 males to each 100 females, or 486 males and 514 females in every 1,000 decedents.

The following Table will show the number and proportion of males and females among the *decedents* in Rhode Island, during the ten years 1853 to 1862, inclusive; also in each of the twenty-four years from 1863 to 1886, inclusive, and for the entire period of thirty-four years:

TABLE XLVII.

	Males.	Females.	Males to every 100 females.
10 years, 1853-1862.....	10,930.....	11,269.....	96.9
1863.....	1,621.....	1,586.....	102.2
1864.....	1,633.....	1,727.....	92.4
1865.....	1,686.....	1,719.....	98.1
1866.....	1,497.....	1,473.....	101.5
1867.....	1,442.....	1,447.....	99.7
1868.....	1,413.....	1,499.....	94.3
1869.....	1,696.....	1,686.....	100.6
1870.....	1,588.....	1,650.....	96.2
1871.....	1,621.....	1,723.....	94.1
1872.....	2,118.....	2,129.....	99.4
1873.....	2,166.....	2,237.....	95.5
1874.....	2,111.....	2,118.....	99.7
1875.....	2,108.....	2,209.....	95.4
1876.....	1,969.....	2,147.....	91.7
1877.....	2,132.....	2,318.....	92.0
1878.....	2,161.....	2,280.....	94.8
1879.....	2,183.....	2,289.....	95.4
1880.....	2,366.....	2,463.....	96.0
1881.....	2,367.....	2,559.....	96.8
1882.....	2,487.....	2,587.....	96.5
1883.....	2,627.....	2,655.....	99.0
1884.....	2,486.....	2,655.....	93.6
1885.....	2,607.....	2,782.....	93.7
1886.....	2,833.....	3,016.....	93.9
34 years.....	59,948.....	62,213.....	96.4

The following Table of births, during the same period of time as the preceding, will show by comparison the different proportions of the sexes in the two classes of events:

TABLE XLVIII.

BIRTHS.			
	Males.	Females.	Males to every 100 females.
10 years, 1853-1862.....	18,377.....	17,260.....	106.4
1863.....	1,892.....	1,788.....	105.8
1864.....	1,919.....	1,942.....	100.3
1865.....	2,056.....	1,857.....	112.9
1866.....	2,546.....	2,356.....	108.1
1867.....	2,655.....	2,464.....	107.7
1868.....	2,745.....	2,627.....	104.5
1869.....	2,685.....	2,560.....	104.9
1870.....	2,679.....	2,536.....	105.6
1871.....	2,878.....	2,800.....	102.8
1872.....	3,085.....	3,058.....	100.9
1873.....	3,135.....	2,887.....	108.6
1874.....	3,311.....	3,155.....	104.9
1875.....	3,362.....	3,146.....	106.9
1876.....	3,291.....	3,038.....	108.3
1877.....	3,163.....	3,072.....	103.0
1878.....	3,402.....	3,312.....	102.7
1879.....	3,259.....	3,091.....	105.4
1880.....	3,241.....	3,054.....	106.1
1881.....	3,498.....	3,263.....	107.2
1882.....	3,509.....	3,316.....	105.8
1883.....	3,548.....	3,498.....	101.4
1884.....	3,713.....	3,592.....	103.4
1885.....	3,591.....	3,437.....	104.4
1886.....	3,897.....	3,734.....	104.6
34 years.....	91,507.....	86,833.....	105.5

SEASON AND MORTALITY.

The whole number of decedents, and the sex of the same, in each month of the year 1886, and in each division of the State, may be found in Table VI, on the ninth page.

The influence of season upon mortality may be further illustrated by the following Table, which shows the number and percentage of deaths in each quarter of each of the last four years, and in the aggregate for thirty-one years, 1853 to 1883, inclusive :

TABLE XLIX.

SEASON.	1886.		1885.		1884.		1883.		1853-1883.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
January-March	1,413	24.16	1,433	26.59	1,111	21.61	1,246	23.59	24,814	23.46
April-June.....	1,297	22.17	1,237	22.95	1,111	21.61	1,321	25.00	22,239	21.02
July-September.....	1,745	29.83	1,575	29.22	1,512	29.41	1,471	27.84	30,457	28.79
October-December.....	1,394	23.84	1,144	21.24	1,407	27.37	1,244	23.57	28,272	26.73
Total.....	5,849	100.00	5,389	100.00	5,141	100.00	5,282	100.00	105,782	100.00

The proportions of mortality in 1885, in the first and last quarters of the year, were quite remarkable if not entirely unprecedented. In the first quarter the ratio was about five per cent. *larger* than in 1884, and about three per cent. larger than the average of thirty-one years. In the last quarter the ratio was more than five per cent. *smaller* than in the preceding year, and five and one-half per cent. smaller than the annual average of thirty-one years.

In 1886 the proportions more nearly corresponded with those of the average of thirty-one years, with the exception of the last quarter, which was nearly three per cent. smaller. In comparison with 1885, the first and second quarters were smaller in proportion, and the third and fourth larger, the last by two and six-tenths per cent.

TABLE L.

Showing the months in the order of largest mortality, for eight years.

1886.	1885.	1884.	1883.	1882.	1881.	1880.	1879.
1. August..... 644	July..... 587	August..... 432	July..... 537	August..... 589	August..... 576	July..... 488	January..... 468
2. July..... 589	August..... 518	October..... 518	August..... 499	November..... 461	January..... 430	August..... 430	August..... 452
3. March..... 515	March..... 499	September... 514	April..... 475	September... 444	July..... 434	March..... 426	December..... 395
4. September. 512	January.. 492	December.... 457	January..... 432	July..... 410	October..... 426	January..... 422	October..... 391
5. October..... 512	April..... 482	July..... 456	May..... 455	May..... 406	April..... 417	October..... 416	November..... 388
6. January..... 488	September .. 470	November..... 432	October..... 443	December..... 405	September .. 414	April..... 400	July..... 383
7. April..... 460	February. 442	April..... 416	March..... 442	April..... 401	May..... 410	May..... 392	March..... 382
8. December.. 454	March..... 404	March..... 389	September.... 435	October..... 369	March..... 401	September.... 388	April..... 342
9. November.. 428	May..... 397	January..... 373	December..... 409	January..... 398	February..... 596	December..... 317	September..... 339
10. May..... 420	October..... 376	May..... 369	June..... 401	February..... 292	December..... 385	February..... 308	February..... 335
11. June..... 417	November..... 394	February..... 344	November..... 392	March..... 390	November..... 374	November.... 365	May..... 318
12. February... 410	June..... 357	June..... 326	February..... 332	June..... 379	June..... 344	June..... 357	June..... 279
—	—	—	—	—	—	—	—
5,849	5,389	5,141	5,282	5,074	5,016	4,829	4,472

PARENTAGE OF DECEDENTS.

The number of decedents, in 1886, of the two general classes of parentage, that is, American and foreign, may be found in Table I, on pages 2 and 3.

Of the whole number of decedents, 5,849, reported in 1886, 2,747 were of American, and 3,102 were of foreign parentage.

By the term "foreign parentage" is meant the decedents whose fathers were born in some other country and not in the United States. The grandchildren of foreign born grandfathers are reckoned as of American parentage, if their fathers were born in the United States.

The following six towns reported a larger number of decedents of foreign parentage than of American: Warren, Cumberland, Lincoln, Pawtucket, Woonsocket, and Providence city. Also the State Institutions in Cranston.

The six towns reporting a larger number of decedents of foreign parentage than of American, had the following proportions of the same:

Cranston (State Institutions).....	138 of foreign parentage to each 100 of American.
Cumberland.....	270 of foreign parentage to each 100 of American.
Lincoln.....	426 of foreign parentage to each 100 of American.
Pawtucket.....	162 of foreign parentage to each 100 of American.
Woonsocket.	390 of foreign parentage to each 100 of American.
Providence City.	129 of foreign parentage to each 100 of American.
Warren.	122 of foreign parentage to each 100 of American.

The proportion of the decedents of foreign parentage was smaller at the State Institutions than in the preceding year, and larger in all the towns above named except Warren, in which the proportion was only slightly smaller.

The following Table gives the number and proportion in every one thousand deaths of decedents of American and of foreign parentage, in each of the last four years; and in the aggregate for twenty-five years, or from 1858 to 1882, inclusive:

TABLE II.

PARENTAGE.	1886.		1885.		1884.		1883.		1858-1882.	
	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.	Number.	Per 1,000.
American.....	2,747	469.7	2,765	513.8	2,485	483.4	2,652	502.1	59,760	553.6
Foreign.....	3,102	530.3	2,624	486.2	2,656	516.6	2,630	497.9	48,193	446.4
Total.....	5,849	1000.0	5,389	1000.0	5,141	1000.0	5,282	1000.0	107,953	1000.0

AGE OF DECEDENTS.

In Table I, on pages 2 and 3, may be found the aggregate and average age of all the decedents whose deaths occurred in 1886, and with the age of each sex, in each town and county in the State.

By that Table it will be seen that the average age of all the male decedents in the State, in 1886, was 33.02 years, and that the average age of all the female decedents, in the same year, was 34.91 years.

The average age of all decedents, of both sexes, in the same year, was 34.01 years.

The average age of all the decedents in the State, in 1886, was about seven months less than the average in 1885.

The following Table will present, separately, the average age of the male and female decedents, and the average age of all decedents, in each year for twenty-seven years; also the average age in five periods of five years each, 1860-1884:

TABLE LII.

YEARS.	Average Age of Males.	Average Age of Females.	Average Age of All.	Average Age, 5-year periods, 1860-1884.
1860	28.51	30.70	29.64	} 29.71
1861	26.95	30.58	28.82	
1862	29.64	32.65	31.15	
1863	28.29	30.86	29.56	
1864	28.13	30.43	29.40	} 31.58
1865	26.38	28.97	27.69	
1866	31.13	35.07	33.00	
1867	32.16	35.86	34.01	
1868	30.47	35.08	32.85	} 30.20
1869	28.62	31.29	30.25	
1870	31.02	32.75	31.90	
1871	32.57	34.43	33.52	
1872	28.41	31.15	29.77	} 31.29
1873	26.18	28.62	27.42	
1874	28.03	31.66	29.86	
1875	29.72	32.75	31.27	
1876	31.47	33.21	32.37	} 33.24
1877	29.25	31.56	30.45	
1878	29.02	31.11	30.09	
1879	31.29	33.24	32.29	
1880	29.62	32.06	30.86	} 33.24
1881	30.99	34.07	32.55	
1882	31.33	35.57	33.50	
1883	33.64	37.44	35.55	
1884	32.29	35.12	33.76	} 33.24
1885	33.53	35.60	34.59	
1886	33.02	34.91	34.01	

The above Table shows, conclusively, that the average longevity of the decedents in Rhode Island has increased over three years during a period of twenty-five years.

The following Table will present some of the facts of the preceding as occurring in the different divisions of the State, instead of the

State at large. It will show the average age of the decedents in each of the larger divisions of the State, in each of the last four years, and also the average of each of five periods of five years each, comprising the twenty-five years from 1858 to 1882, inclusive:

TABLE LXIII.

DIVISIONS OF THE STATE.	1886.	1885.	1884.	1883.	1878-1882, 5 years.	1873-1877, 5 years.	1868-1872, 5 years.	1863-1867, 5 years.	1858-1862, 5 years.
Bristol County	40.04	42.14	37.62	39.24	36.68	33.61	35.12	34.78	35.56
Kent County	33.83	34.78	39.21	41.36	37.11	36.90	34.77	35.81	32.15
Newport County	50.00	44.08	40.20	40.66	39.21	40.68	40.04	33.54	35.01
* Providence County	30.07	32.41	32.52	34.56	30.60	28.46	25.26	29.16	28.44
Providence City	32.45	33.81	31.51	33.18	29.50	27.19	25.45	28.50	25.78
Washington County	44.12	42.61	42.13	47.42	41.01	41.14	39.67	30.87	34.21
Whole State	34.01	34.59	33.76	35.55	31.84	30.28	31.66	30.73	29.42

PERCENTAGE OF DECEDENTS BY DIFFERENT AGES.

In Table VII, on pages 10 to 15, inclusive, will be found the number of deaths in 1886, in each town and each county, of each sex, and in each period of life, with the percentage of the whole number of deaths in each division to the population of the same, as estimated by the authorities of each.

The following Table shows the percentages of decedents in each division of ages, to whole number of deaths, in each of the last six years, and in the aggregate for three periods; one of ten years and seven months, from June 1st, 1852, to December 31st, 1862, inclusive; one of ten years, from 1863 to 1872, inclusive; and one of ten years, from 1873 to 1882, inclusive:

* Including Pawtucket.

TABLE LIV.

PERIODS OF LIFE.	1886.	1885.	1884.	1883.	1882.	1881.	10 years, 1873 to 1882.	10 years, 1873 to 1882.	10 years, 7 months, 1852 to 1862.
Under 1 year	19.9	18.8	20.1	18.1	19.7	18.5	18.9	18.0	17.6
1 and under 2.....	5.3	5.2	5.6	5.1	5.3	6.4	7.6	7.8	9.8
2 and under 5.....	6.5	6.1	6.6	4.1	6.5	7.9	8.4	7.9	9.6
Total under 5.	31.7	30.1	32.3	27.6	30.5	32.8	34.9	33.7	37.0
5 and under 10.....	4.0	3.3	3.5	3.4	3.7	4.6	5.0	4.6	5.0
10 and under 20.....	5.5	5.6	4.8	5.4	5.8	5.2	5.8	6.2	5.8
20 and under 30.....	8.7	8.6	9.2	10.3	10.6	9.6	9.2	9.7	9.5
30 and under 40.....	7.5	7.9	8.1	8.4	9.3	8.0	7.8	8.1	8.7
40 and under 50.....	7.4	7.7	7.2	7.6	7.6	7.6	6.9	7.2	7.5
50 and under 60.....	8.1	8.1	8.1	9.0	7.3	8.2	7.2	7.3	6.7
60 and under 70.	9.1	10.4	9.1	9.2	8.4	8.8	8.2	8.3	6.9
70 and under 80.....	10.6	10.4	9.5	10.5	9.7	8.6	8.8	8.4	7.3
80 and under 90.....	5.3	6.2	6.9	6.5	5.6	5.4	5.1	5.4	4.6
Over 90 and not stated..	2.1	1.7	1.3	2.1	1.5	1.2	1.1	1.1	1.0
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

There was an increase in all the divisions of age under ten, in the percentage to the whole number of deaths in 1886. Under five years the percentage was one and six-tenths *larger*, but this proportion was three and five-tenths *less* than the average of thirty years previous to 1883.

Above the age of ten years the proportionate mortality was somewhat smaller in nearly every period.

The rule for several years previous to 1886, however, had been an increased percentage of mortality in the divisions of age above fifty years.

The following Table will present the varying proportions of deaths to whole number of deaths, in four different periods of life, from 50 years of age to 90 years, grouped in three periods of ten years each, and one period comprising the last four years, 1883-1886:

TABLE LV.

AGE OF DECEDENTS.	1st Decade.	2d Decade.	3d Decade.	Last 4 Years.
50 to 60	6.7 per cent.	7.3 per cent.	7.2 per cent.	8.3 per cent.
60 to 70	6.9 "	8.3 "	8.2 "	9.4 "
70 to 80	7.3 "	8.4 "	8.8 "	10.2 "
80 to 90	4.6 "	5.4 "	5.1 "	6.2 "

It has been before observed that the natural result of a lessened proportion of deaths in the earlier periods of life would be a larger proportion of living persons in the later periods, and consequently an increased death rate, because of the larger proportional number liable to disease and other causes of death.

COLORED DECEDENTS.

The number of deaths of persons of color, in Rhode Island, during 1886, was 198. They occurred in the different towns as follows :

Providence City.....		124
Newport City.....		31
Warwick		6
East Greenwich.....		4
Pawtucket,	} 2 each	10
Bristol,		
Gloicester,		
Westerly,		
South Kingstown,		
Cranston,	} 1 each.....	11
Charlestown,		
North Smithfield,		
Exeter,		
Barrington,		
Warren,		
New Shoreham,		
East Providence,		
Johnston,	} 1	12
Hopkinton,		
Richmond,		
State Institutions.....		12
Total.....		198

Sex.—Of the decedents of color, 82 were males, and 116 were females.

Season.—The deaths were in the different months as follows:

Months.	Deaths.	Months.	Deaths.	Months.	Deaths.	Months.	Deaths.
January.....	13	April.....	15	July.....	27	October.....	16
February.....	12	May.....	17	August.....	18	November.....	9
March.....	21	June.....	16	September.....	15	December.....	19
—	—	—	—	—	—	—	—
First Quarter.....	46	Second Quarter.....	48	Third Quarter.....	60	Fourth Quarter.....	44

First six months, 94; Second six months, 104; Total, 198.

The following summary will show the proportions, to the whole estimated colored population, of each of the events of birth, marriage and death of colored persons, during the nine years from 1878 to 1886, inclusive:

	One Birth in every	One Person married in every	One Death in every
1878.....	36.4.....	39.2.....	40.2.....
1879.....	39.6.....	51.4.....	37.3.....
1880.....	47.1.....	43.3.....	44.0.....
1881.....	34.3.....	39.2.....	35.4.....
1882.....	36.8.....	44.5.....	45.4.....
1883.....	33.4.....	63.3.....	39.7.....
1884.....	34.8.....	46 0.....	34.5.....
1885.....	36.7.....	51.7.....	40.1.....
1886.....	34.6.....	43.2.....	37.8.....

In every one thousand of the colored population there were, in 1886,

Of Births.	Married.	Of Deaths.
28.9.....	23.2.....	26.5.....

The following exhibit will show the number of births, marriages and deaths among the colored population of Rhode Island, during 10 years, 1861 to 1870, inclusive, and in each of the last sixteen years, from 1871 to 1886, inclusive, and also the aggregates of the same:

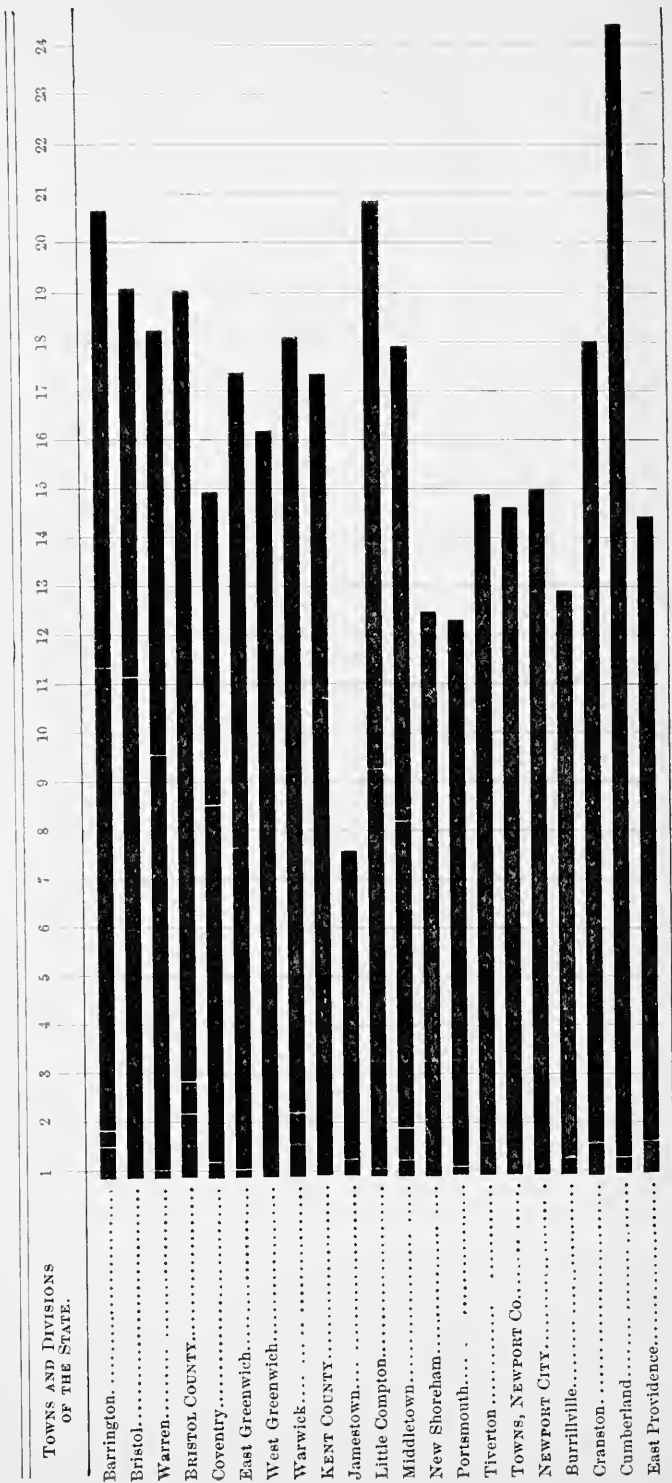
10 years, 1861-1870.....	1,131 births	557 marriages.....	1,153 deaths.
1871.....	146 births.....	64 marriages.....	116 deaths.
1872.....	171 births.....	76 marriages.....	184 deaths.
1873.....	163 births.....	69 marriages	160 deaths.
1874.....	170 births.....	80 marriages.....	151 deaths.
1875	156 births.....	76 marriages.....	169 deaths.
1876.....	170 births.....	59 marriages.....	156 deaths.
1877.....	168 births	64 marriages.....	160 deaths.
1878.....	172 births.....	80 marriages	156 deaths.
1879.....	159 births	61 marriages.....	168 deaths.
1880	140 births	76 marriages	153 deaths.
1881.....	192 births.....	84 marriages..	186 deaths.
1882	179 births.....	74 marriages.....	145 deaths.
1883	197 births.....	52 marriages.....	166 deaths.
1884	185 births.....	70 marriages.....	187 deaths.
1885	199 births.....	69 marriages.....	183 deaths.
1886.....	212 births.....	85 marriages	198 deaths.
<hr/>			
Last 16 years.....	2,779 births.....	1,139 marriages.....	2,638 deaths.
Total, 26 years.....	3,910 births.	1,696 marriages....	3,791 deaths.
Excess of births over deaths, twenty-six years.	119		

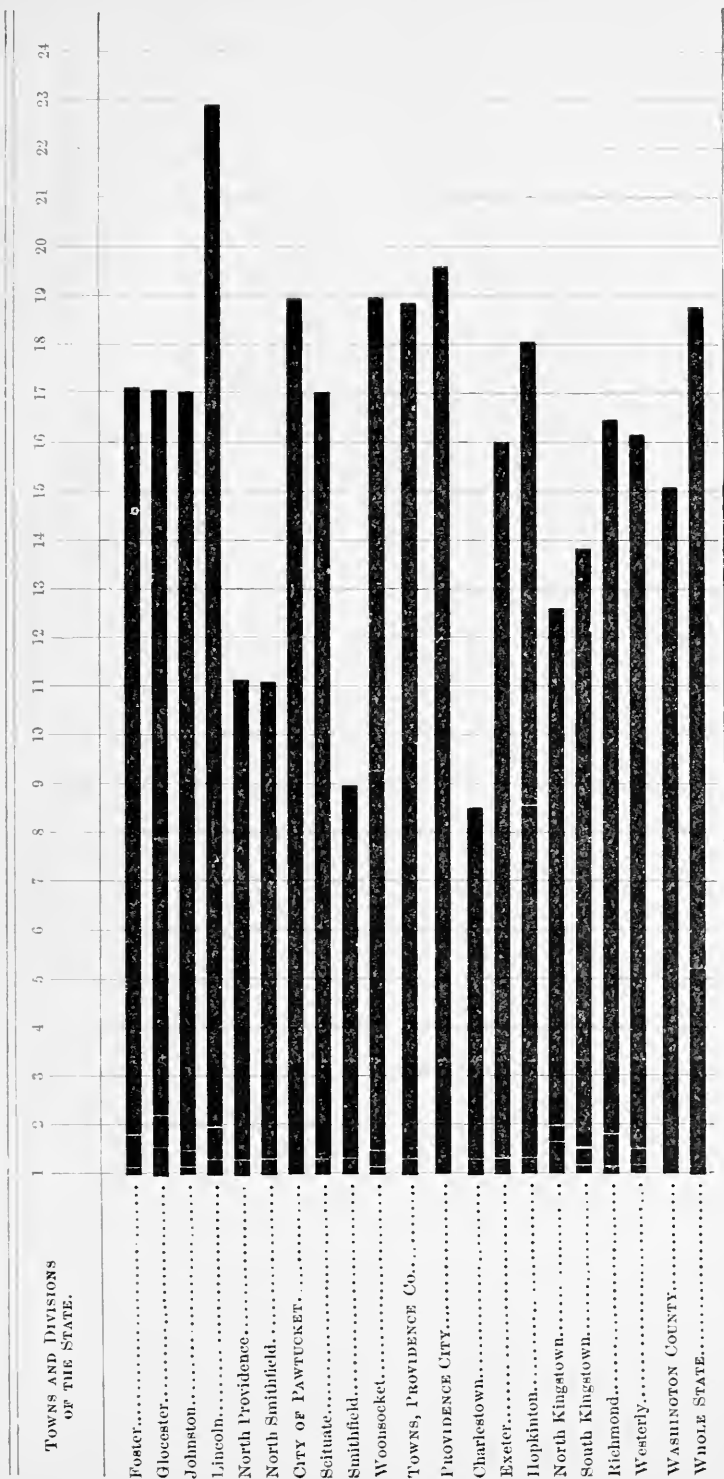
An average excess of births over deaths of less than five each year.

DEATH RATES.

Diagram II.—Showing the number of deaths in every 1000 of the population, in each town and each county in the State, during the year 1886, computed upon the estimate of population by the town authorities.

For explanation see foot note on next page.





The figures at the top of the perpendicular lines indicate, in whole numbers, the number of deaths during the year in every 1000 persons. The spaces are fractional parts of one. For instance, the heavy horizontal line against Barrington reaches about eight-tenths of the way across the space between the perpendicular lines 20 and 21. It shows the death rate of Barrington, in 1886, was about twenty and eight-tenths in every 1000 of the population, according to the estimate.

CAUSES OF DEATH, 1886.

The statistics of the causes of death in Rhode Island, in 1886, may be found in Tables VIII, IX, X and XII. The whole number of deaths, as previously stated, was 5,849. The number of which the cause of death was reported was 5,798, and the number of which the cause was not stated was 51.

The following Table shows the number of deaths in 1886, in each large division of the State, and the number and proportion in each division from which causes were reported unknown:

TABLE LVI.

1885.	Bristol County.	Kent County.	Newport County Towns.	Providence County Towns.	Washington County.	Newport City.	Providence City.	Whole State.
Number of deaths.....	221	385	128	2,087	331	305	2,341	5,798
Cause not stated.....	2	2	1	34	6	4	12	51
One in.....	110.5	192.5	128.0	87.0	55.2	76.2	195.1	113.7

TABLE LVI.

Showing the proportion of deaths reported, with "cause unknown," in each division of the State, and in the whole State, in each of the last twenty-four years, from 1863 to 1886, inclusive.

YEARS.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Providence City.	Washington County.	Whole State.
1863, One in every.....	16.5	11.2	25 5	6.9	46.7	24.7	14.7
1864, One in every.....	57.0	12.6	11.6	8.5	45.7	47.6	16.1
1865, One in every.....	64.3	27.4	13.4	8.2	55.0	32.9	16.4
1866, One in every.....	163.0	11.4	22.4	9.5	45.0	23.3	17.3
1867, One in every.....	.....	13.6	34.5	7.4	64.0	14.3	14.8
1868, One in every.....	32.3	5.0	20.3	5.2	46.2	10.1	10.1
1869, One in every.....	41.2	5.8	52.8	5.3	83.6	16.1	11.3
1870, One in every.....	.....	19.3	23.6	11.8	90.2	26.9	23.6
1871, One in every.....	151.0	81.2	7.9	8.4	83.6	9.8	13.0
1872, One in every.....	13.3	5.8	10.0	6.8	72.8	9.8	11.3
1873, One in every.....	.....	16.0	25.4	9.8	102 5	27.5	20.3
1874, One in every.....	54.0	15.2	14.0	17.2	73.7	21.2	27.8
1875, One in every.....	55.0	7.4	15.6	13.7	91.2	11.9	20.9
1876, One in every.....	11.5	7.9	18.5	9.9	124.3	22.8	19.3
1877, One in every.....	.....	17.7	9.7	11.9	323.0	16.0	23.2
1878, One in every.....	32.1	7.4	9.0	13.7	124.2	21.7	21.1
1879, One in every.....	16.6	9.2	12.4	9.5	225.1	8.6	17.6
1880, One in every.....	21.9	23.5	13.5	10.5	122.3	17 8	20.7
1881, One in every.....	204.0	13.0	11.2	7.3	143.0	6.5	14.4
1882, One in every.....	37.6	11.6	10.9	10.6	187.0	7.7	18.8
1883, One in every.....	40.4	15.9	15.0	15.3	392.8	17.0	28.4
1884, One in every.....	100.0	40.0	81.6	91.7	372.1	94.0	122.4
1885, One in every.....	.....	.....	137.0	45.6	309.1	52.2	91.3
1886, One in every.....	110.5	192 5	86.0	87.0	195.1	55.2	113.7

The average annual proportion of deaths in the whole State, reported with cause unknown during the first ten of the above twenty-four years, that is, from 1863 to 1872, inclusive, was one in every 14.8; or 67.6 in every one thousand decedents.

The average annual proportion of the same for the last three years was one in every 109.1, or less than 9.2 in every one thousand decedents, showing great improvement in the complete filling out of the returns.

TABLE LVIII.

Showing the Order in regard to Number and Proportion of Decedents from Thirteen Principal Causes of Death.

1886.	1885.	1884.	1883.	1882.	1881.	Per 1,000 of whole No. of deaths, 30 years, 7 months.
Whole Number.....5,849	Whole Number.....5,389	Whole Number.....5,141	Whole Number.....5,282	Whole Number.....5,074	Whole Number.....5,016	Whole Number. 101,220
Consumption.....826	Consumption.....781	Consumption.....739	Consumption.....766	Consumption.....737	Consumption.....706	Consumption.....16,025
Pneumonia and Conges. of Lungs. 481	Pneumonia and Conges. of Lungs. 467	Pneumonia and Conges. of Lungs. 363	Pneumonia and Conges. of Lungs. 400	Pneumonia and Conges. of Lungs. 314	Pneumonia and Conges. of Lungs. 337	Pneumonia and Conges. of Lungs. 6,099
Cholera Infantum.....377	Heart, Diseases of... 349	Cholera Infantum.....325	Heart, Diseases of... 325	Cholera Infantum.....325	Heart, Diseases of... 261	Old Age.....5,408
Apoplexy and Paralysis.....333	Apoplexy and Paralysis.....289	Apoplexy and Paralysis.....298	Apoplexy and Paralysis.....275	Apoplexy and Paralysis.....275	Old Age.....247	Cholera Infantum 5,143
Heart, Diseases of... 330	Cholera Infantum.....279	Old Age.....263	Old Age.....275	Apoplexy and Paralysis.....265	Cholera Infantum.....240	Scarlatina.....4,308
Old Age.....276	Old Age.....267	Heart, Diseases of... 285	Fevers, Typhoid, &c.....258	Heart, Diseases of... 255	Diphtheria.....216	Dysentery and Diarrhea.....4,310
Diphtheria.....228	Brain, Diseases of... 189	Diarrhea and Dysentery.....191	Cholera Infantum.....212	Fevers, Typhoid, &c.....229	Brain, Diseases of... 179	Heart, Diseases of 3,947
Accidents.....189	Cancers.....193	Accidents.....180	Diarrhea and Dysentery.....181	Brain, Diseases of... 173	Apoplexy.....146	Fevers, Typhoid, &c.....3,755
Brain, Diseases of... 182	Accidents.....173	Fevers, Typhoid, &c.....165	Brain, Diseases of... 179	Accidents.....166	Cancers.....145	Apoplexy and Paralysis.....3,537
Bronchitis.....174	Fevers.....153	Cancers.....156	Cancers.....169	Dysentery and Diarrhea.....158	Accidents (all kinds).....113	Accidents (all kinds).....3,018
Fevers.....169	Diarrhea and Dysentery.....120	Brain, Diseases of... 148	Accidents.....155	Cancers.....132	Accidents.....142	Diphtheria*.....2,919
Cancers.....163	Diphtheria.....99	Convulsions.....139	Convulsions.....126	Convulsions.....121	Scarlatina.....138	Convulsions and Fits.....2,203
Kidneys, Disease of. 155	Scarlet Fever.....91	Diphtheria.....119	Diphtheria.....95	Diphtheria.....101	Dysentery and Diarrhea.....119	Group.....2,013

* 25 years, 1858 to 1882, inclusive.

As in all previous years, consumption leads as the most important cause of death. The percentage of increase over 1885, however, taking into account all causes of death in 1886, was less from consumption than the percentage of general increase.

Other diseases of the lungs, principally pneumonia and bronchitis, produce a mortality three-fourths as large as consumption, and all forms of diseases of the lungs taken together were a cause of more than one quarter of the whole mortality in 1886.

The increase of mortality from cholera infantum is quite noticeable, as will be seen in the above Table, and the same may be said of diphtheria.

Bronchitis and diseases of the kidneys are, for the first time in any year, admitted as having a place among the thirteen leading causes of death.

TABLE LIX.—Continued.

A summary of Deaths in Rhode Island in 1886, from twenty leading causes, showing the Number, Sex, Percentage, Season, Ages and Localities.

	Accidents.	Apoplexy and Paralysis.	Brain, Diseases of.	Bronchitis.	Cancer.	Cholera Infantum.	Consumption.	Croup.	Diarrhea.	Diphtheria.	Dysentery.	Fevers, Typhoid, &c.	Heart, Diseases of.	Whooping Cough.	Kidneys, Disease of.	Liver, Disease of.	Old Age.	Pneumonia and Congestion of Lungs.	Scarlatina.	Stomach, Diseases of.
AGES																				
Under 5 years	35	2	94	85	...	377	32	75	68	148	31	17	13	47	5	1	1	111	57	10
5 and under 10	29	2	25	5	...	...	5	12	1	54	3	12	9	2	1	1	...	10	22	1
10 "	13	...	6	...	1	...	16	2	...	13	1	9	9	...	5	...	...	7	8	...
15 "	...	...	6	...	...	...	72	1	...	6	...	25	8	...	...	...	...	...	19	4
20 "	21	3	2	6	2	...	257	...	2	2	4	41	12	...	16	1	1	32	1	1
30 "	18	10	4	4	9	...	172	...	1	1	4	20	25	...	25	7	...	35	...	1
40 "	13	25	7	...	...	...	103	...	...	3	3	14	35	...	19	7	...	56	1	4
50 "	13	52	13	11	37	...	74	...	4	...	6	17	52	...	22	9	...	58	...	4
60 "	14	65	10	21	46	...	53	...	5	...	2	2	65	...	29	14	1	74	...	3
70 "	13	112	12	26	31	...	29	...	7	1	7	5	65	...	24	12	...	55	...	5
80 and over	6	51	3	13	8	...	5	...	4	...	4	1	16	...	8	1	183	30	...	...
Not stated	2	3	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...
LOCALITY																				
Bristol County	16	11	4	3	6	4	23	2	3	20	4	6	12	4	3	4	16	17	...	1
Kent County	11	27	14	4	11	29	43	18	6	21	5	8	20	3	10	4	24	29	13	2
Newport County Towns	7	14	1	1	2	5	14	4	...	5	...	2	2	...	8	1	15	15	...	1
Newport City	9	18	12	8	7	10	43	8	...	12	...	9	16	...	14	3	21	22	4	2
Providence County Towns	62	108	69	74	37	194	276	24	48	64	25	66	82	18	37	14	100	161	41	17
Providence City	71	120	78	83	87	120	368	32	34	98	25	70	168	23	71	28	73	209	80	4
Washington County	13	35	4	1	12	15	59	2	2	2	6	8	30	1	12	...	27	28	2	1

COMMENTS.

In the preceding pages there have been presented, numerically and in tabular form, the various causes of death in Rhode Island, in 1886. In Tables VIII and IX they were presented at considerable length, in various specific terms, and in Table X more or less grouped in a general nosological arrangement.

In Table VIII the number of deaths from *each cause* and of *each sex* is shown, for *each month* in the year, and the *parentage* of the decedents from *each cause* during the year.

In Table IX the number of decedents of *each sex* from *each cause*, in the *different periods of life*, is given.

In Table X, with the classification and percentage of causes of death, the number of each general cause, in each division of larger population, is given.

Table LIX is a compend in part of the three tables previously alluded to, and contains the particulars of the causes of death, in 1886, of the principal causes which will be commented upon in the following pages.

DEATHS FROM ACCIDENTS.

The number of deaths from accidental causes of all kinds, reported in Rhode Island, in 1886, was 189. This number is 16 more than during 1885.

Of these 189 deaths 23 were from burns and scalds; 58 by drowning; 20 from falls; 6 from poisoning; 20 from railroad accidents; 8 from asphyxia, and 54 from accidents too numerous to specify.

Of the whole number of deaths by accident 141 were males, and 48 were females; 83 were of American, and 106 were of foreign parentage.

Of the sexes the proportion was 75 per cent. of male decedents, to 25 per cent. of female decedents. Of parentage, 56 per cent. was of foreign, and 44 per cent. of American.

The number of deaths in each division of the year was as follows:

First Quarter.....	45	Third Quarter.....	50
Second Quarter.....	56	Fourth Quarter.....	38
<hr/>			
First Half.....	101	Second Half.....	88
Whole Year.....	189		

In regard to periods of life, the decedents from accidental causes were divided as follows: Under 5 years, 35; 5 and under 10, 29; between 10 and 20, 25; between 20 and 40, 39; between 40 and 60, 26; over 60, 33; and 2, age not stated.

In regard to sectional divisions of the State, 16 of the deaths from accidental causes were in Bristol county; 11 in Kent county; 16 in Newport county; 13 in Washington county, and 133 in Providence county.

The whole number of deaths from accidental causes, in 1886, *in proportion to the whole number of deaths* from specified causes, in the State, was about 33.2 in every one thousand.

APOPLEXY AND PARALYSIS.

There were 333 deaths from apoplexy and paralysis in Rhode Island, in 1886, according to the returns. The number reported is 35 more than in the year 1884, and 44 more than in 1885.

The following Table will present the social and local relations of apoplexy and paralysis, as causes of death, during the last twenty-two years :

TABLE LX.

Showing the whole number and percentage of the Deaths in the State, from Apoplexy and Paralysis combined: and also the Sex and Parentage of the Decedents from these causes, and the Number of the same in each of the Counties, from 1865 to 1886, inclusive.

YEARS.	Whole Number of Deaths.	APOPLEXY AND PARALYSIS.											
		Number from Apo- plexy and Paralysis.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
				Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Providence City.	Washington County.
1865.....	3,405	100	2.93	52	48	81	19	9	8	14	23	38	8
1866.....	2,970	92	3.09	46	46	80	12	7	5	17	24	29	9
1867.....	2,889	124	4.29	59	65	101	23	9	9	13	35	49	9
1868.....	2,912	111	3.81	56	55	86	25	9	6	19	27	46	4
1869.....	3,382	117	3.46	55	62	92	25	12	13	18	20	48	6
1870.....	3,238	130	4.32	68	62	105	25	14	10	10	39	52	5
1871.....	3,344	156	4.66	73	83	113	43	10	17	15	40	61	13
1872.....	4,247	125	2.97	62	63	96	29	17	9	10	27	52	10
1873.....	4,403	134	3.04	59	75	109	25	9	8	17	26	57	17
1874.....	4,229	156	3.69	84	72	120	36	14	10	16	42	59	15
1875.....	4,317	166	3.61	79	87	133	33	7	13	17	46	75	8
1876.....	4,116	165	4.01	79	86	130	35	13	11	13	45	68	1
1877.....	4,450	181	4.07	87	94	123	58	10	10	16	52	74	19
1878.....	4,441	188	4.23	104	84	145	43	12	16	21	58	66	15
1879.....	4,472	220	4.92	114	106	146	74	12	9	29	71	89	10
1880.....	4,829	215	4.67	109	106	157	58	18	13	22	71	78	13
1881.....	5,016	244	4.86	116	128	170	74	17	15	25	70	101	16
1882.....	5,074	265	5.22	139	126	168	97	15	29	25	65	117	15
1883.....	5,282	275	5.22	138	137	192	83	11	28	22	75	118	21
1884.....	5,141	298	5.80	135	163	176	122	21	14	28	108	105	22
1885.....	5,389	289	5.38	144	145	183	106	16	18	28	99	110	18
1886.....	5,849	333	5.70	173	160	230	103	11	27	32	108	120	35
Total.....	93,395	4,084	4.17	2,013	2,071	2,936	1,148	274	258	426	1,171	1,612	303

Table LX shows a large proportional as well as actual increase of deaths from apoplexy and paralysis, during twenty-two years.

The number in 1886 was not only larger in absolute numbers than in any previous year, but, with one exception, the largest in proportion to the whole number of deaths.

TABLE LXI.

Showing the ages of Decedents from Apoplexy and Paralysis, in each of the last twenty-two years.

APOPLEXY AND PARALYSIS.	PERIODS OF LIFE.							
	Under 30.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.
1865.....	.....	3	5	6	19	20	28	19
1866.....	1	1	7	16	9	24	27	7
1867.....	2	.....	6	6	15	38	40	17
1868.....	2	3	3	11	16	27	31	16
1869.....	1	1	5	12	20	28	34	15
1870.....	4	1	10	9	12	33	41	30
1871.....	3	4	7	14	21	46	45	15
1872.....	1	4	5	17	20	26	41	11
1873.....	2	3	4	14	22	35	37	16
1874.....	1	2	9	9	30	39	40	25
1875.....	6	2	8	19	23	40	45	22
1876.....	4	4	4	13	25	43	49	23
1877.....	1	2	9	12	24	50	61	22
1878.....	4	2	7	14	41	40	53	26
1879.....	4	6	11	18	27	57	59	38
1880.....	1	2	8	18	21	59	70	34
1881.....	1	7	11	20	36	55	70	42
1882.....	4	5	14	28	41	57	77	38
1883.....	8	4	11	19	45	56	83	49
1884.....	10	7	16	21	32	68	95	45
1885.....	8	5	7	25	29	76	94	44
1886.....	7	8	10	25	52	65	112	51
Total.....	75	76	177	346	580	982	1,221	595

DISEASES OF THE BRAIN.

Under the head of "Diseases of the Brain," in Table LIX, there are included all those diseases returned as "Cerebral Meningitis," "Cerebritis," "Congestion," "Encephalitis," "Inflammation," and "Diseases of the Brain."

The whole number, 182, is 7 less than in the previous year.

The proportions of deaths from these causes to whole number of deaths from all causes, during each of the last eleven years, are as follows:

Years.	Per cent.	Years.	Per cent.
1876.....	3.75	1881.....	3.57
1877.....	3.68	1882.....	3.60
1878.....	3.28	1883.....	3.40
1879.....	3.72	1884.....	2.90
1880.....	3.49	1885.....	3.53
1886.....	3.11 per cent.		

Of the 182 decedents 108 were males, and 74 were females. In regard to parentage, 84 were of American, and 98 of foreign parentage.

The deaths in the different seasons of the year were as follows:

First Quarter.....	45	Third Quarter.....	58
Second Quarter.....	43	Fourth Quarter.....	36
First half.....	88	Last half.....	94
Whole number	182		

In accordance with the rule, the largest number of deaths from diseases of the brain occurred in the third quarter of the year.

Brain diseases occur largely in children. Of the 182 decedents from those causes, in 1886, 94 were under five years of age, and 119 were under ten years of age.

BRONCHITIS.

The number of decedents, in 1886, whose deaths were reported as having been caused by bronchitis, was 174. This is a larger number than was ever before returned in a single year.

Of the 174 decedents 75 were males and 99 were females; or at the rate of 76 males to each 100 females.

In relation to parentage, 81 were of American, and 93 of foreign parentage.

TABLE LXII.

Showing the whole number of Decedents in the State from Bronchitis, with the Percentage of whole number of deaths, the Sex, Parentage, and Localities of Occurrence, during each of the twenty-two years from 1865 to 1886, inclusive.

YEARS.	Whole Number of Deaths.	BRONCHITIS.											
		Number of Deaths from Bronchitis.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
				Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Providence City.	Washington County.
1865.....	3,405	9	.27	4	5	6	3	1	.....	3	.....	5	.....
1866.....	2,970	14	.51	3	11	10	4	.....	1	2	7	4	.....
1867.....	2,889	19	.71	8	11	10	9	1	2	1	5	10	.....
1868.....	2,912	20	.76	9	11	7	13	.....	1	2	5	10	2
1869.....	3,382	20	.65	8	12	9	11	.....	.....	1	4	15	.....
1870.....	3,238	26	.84	15	11	11	15	.....	.....	8	8	17	.....
1871.....	3,344	24	.78	10	14	11	13	.....	1	1	5	17	.....
1872.....	4,247	25	.65	10	15	11	14	1	1	1	6	16	.....
1873.....	4,403	27	.64	12	15	11	16	.....	.....	1	7	18	1
1874.....	4,229	39	.96	22	17	12	27	.....	.....	.....	6	32	1
1875.....	4,317	57	1.39	32	25	29	28	.....	.....	1	21	33	2
1876.....	4,116	57	1.46	23	34	26	31	.....	2	.....	7	46	2
1877.....	4,450	69	1.62	32	37	35	34	1	1	1	22	44	.....
1878.....	4,441	80	1.89	30	50	37	43	1	2	6	22	48	1
1879.....	4,472	62	1.47	31	31	31	31	1	1	5	21	34	.....
1880.....	4,829	91	1.98	49	42	44	47	1	6	6	21	56	1
1881.....	5,016	84	1.80	48	36	39	45	1	1	2	25	53	2
1882.....	5,074	100	2.08	39	61	47	53	3	2	6	25	60	4
1883.....	5,282	111	2.10	56	55	51	60	5	2	3	41	57	2
1884.....	5,141	118	2.29	58	60	40	70	7	.....	8	42	62	.....
1885.....	5,389	168	3.09	82	86	91	77	5	3	13	71	76	.....
1886.....	5,849	174	2.96	75	99	81	93	3	4	9	74	83	1
Total, 22 years...	93,395	1,394	1.49	656	738	649	737	31	30	73	446	796	19

During the first four months of the year the decedents from bronchitis numbered 85, during the last four months the number was 48.

There were 85 of the decedents under five years of age, 17 between five and forty years, 12 between forty and sixty, and 60 of the age of sixty and over.

The increased knowledge of methods of differential diagnosis must account, at least in part, for the greatly increased proportion of deaths returned as having been caused by bronchitis, many cases of bronchitis having doubtless been, in former years, returned as pneumonia.

CANCER.

There were 162 decedents in 1886 whose deaths were caused by cancer, according to the returns. The term cancer includes all the various kinds, and in whatever place located.

The varieties of cancer, as reported, may be found in Tables VIII and IX, on pages 17 and 25. They are classed in Table X as follows: Cancer in various localities, or cancer (various), 95; cancer of the breast, 14; of the stomach, 30; of the uterus, 23.

In 1886 the deaths from cancer, in the several seasons of the year, were as follows:

First Quarter.....	51	Third Quarter.....	35
Second Quarter.....	26	Fourth Quarter.....	50
—			
First half.....	77	Last half.....	85
Whole number.....		162	

The percentage of deaths from cancer, in proportion to whole number of deaths, in each year for eleven years, 1876 to 1886, inclusive, is shown as follows:

Years.	Percentage.	Years.	Percentage.
1876	2.72	1881.....	2.90
1877.....	3.17	1882.....	2.75
1878.....	2.82	1883.....	3.20
1879.....	2.96	1884.....	3.05
1880.....	2.72	1885.....	3.59
1886.....	2.77 per cent.		

Sex.—Of the 162 decedents from cancer 42 were males, and 120 were females; or 25 males and 75 females in every one hundred.

Parentage.—There were 75 of American parentage, and 87 of foreign.

CHILD-BIRTH.

Under the head of "Child-birth" are included puerperal fever, puerperal convulsions, and whatever causes that only occur as the result of child-birth.

The number reported in 1886 was 41; 25 of which were from the immediate effects of child-birth, including metritis, hemorrhage, &c., 6 from puerperal convulsions, and 10 from puerperal fever.

Of the whole number 17 were of American, and 24 of foreign parentage.

CHOLERA INFANTUM.

The number of deaths from cholera infantum, according to the returns for 1886, was 377. The number is 98 more than in 1885.

Sex.—Of the 377 decedents 179 were males and 198 were females; or 90 males to every 100 females.

In proportion to the population, by estimation, the deaths occurred in the different divisions of the State as follows:

Bristol County.....	One in every 2,900 persons.
Kent County.....	One in every 764 persons.
Newport County.....	One in every 1,814 persons.
Providence County Towns.....	One in every 555 persons.
Providence City.....	One in every 1,000 persons.
Washington County	One in every 1,888 persons.
Entire State.....	One in every 802 persons.

The following Table shows the whole number of reported deaths from cholera infantum; the sex and parentage of the decedents; and the number in each of the larger divisions of the State, in each of the last twenty-two years:

TABLE LXIII.

YEARS.	CHOLERA INFANTUM.										
	Number of Deaths.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
		Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Providence City.	Washington County.
1865.....	145	63	82	61	84	17	7	14	48	50	9
1866.....	110	67	43	50	60	1	7	8	39	47	8
1867.....	117	64	53	62	55	4	3	7	45	49	9
1868.....	154	85	69	66	88	13	4	12	44	70	11
1869.....	151	81	70	79	72	6	15	6	48	65	11
1870.....	213	106	107	95	118	15	15	13	69	93	8
1871.....	172	85	87	82	90	14	12	12	59	62	13
1872.....	391	195	196	167	224	16	16	21	157	151	30
1873.....	285	148	137	165	120	17	14	16	120	99	19
1874.....	265	140	125	115	150	4	12	5	84	134	26
1875.....	318	156	162	155	163	20	16	20	108	136	18
1876.....	250	131	119	105	145	5	12	29	68	124	12
1877.....	259	139	120	96	163	12	12	9	96	122	7
1878.....	168	96	72	73	95	7	14	7	64	71	5
1879.....	161	88	73	71	90	8	16	21	51	50	6
1880.....	247	123	124	109	138	13	11	10	93	100	20
1881.....	240	130	110	102	138	10	22	14	75	102	17
1882.....	325	173	152	133	192	20	11	19	132	130	13
1883.....	242	124	118	104	138	12	7	22	88	108	5
1884.....	325	177	148	139	186	10	12	26	114	144	19
1885.....	279	150	129	128	151	5	23	16	133	86	16
1886.....	377	179	198	143	234	4	29	15	194	120	35
Total, 22 years.....	5,194	2,700	2,494	2,300	2,894	233	291	322	1,929	2,122	317

The number of decedents from cholera infantum, during the twenty-two years from 1865 to 1886, inclusive, was 5,194.

The proportion to total mortality, for the period of twenty-two years, was 5.8 per cent. For 1886 the proportion was 6.27 per cent.

There were 108 males to every 100 females among the decedents during the twenty-two years; and 125 decedents of foreign parentage to every 100 of American, during the same period.

CONSUMPTION.

The decedents from consumption, during 1886, numbered 826. In 1883 the number was 766, in 1884 it was 739, and in 1885 it was 781.

Sex.—Of these 826 decedents 382 were males, and 444 were females; giving 116.2 female decedents to every 100 male decedents; or 46.2 males and 53.8 females in every 100 decedents from consumption.

Usually there are one hundred and twenty or more females to every one hundred male decedents from consumption.

Parentage.—There were 308 decedents of American parentage, and 518 of foreign; a proportion of 168 of foreign parentage to every 100 of American. In 1884 there were 160 of foreign parentage to every 100 of American, and in 1885 148 of foreign to every 100 of American.

Season.—The largest number of deaths in any one month, 85, occurred in April; the next largest, 81, in July; the smallest number, 54, in February.

The number in each quarter of the year was as follows:

First Quarter.....	207	Third Quarter.....	216
Second Quarter.....	214	Fourth Quarter.....	189
<hr/>			
First half.....	421	Last half.....	405
<hr/>			
Total.....	826		

Ages.—During 1886, of the 826 decedents from consumption, 257, or nearly one-third, were between the ages of 20 and 30, and 172, or more than one-fifth, were between the ages of 30 and 40.

In order to show more concisely the relation of age to mortality from consumption, during 1886, the following synopsis is presented:

Under 10 years of age.....	37
Between 10 and 20 years.....	94
Between 20 and 30 years.....	257
Between 30 and 40 years.....	172
Between 40 and 50 years.....	103
Between 50 and 70 years.....	127
Over 70 years.....	34
Not stated.....	2
<hr/>	
Total.....	826

The following Table shows the total deaths from all reported *known causes*, with the number and percentage of deaths from consumption to the same, in each of the larger divisions of the State, and in the whole State, in each of the last seventeen years, and in the aggregate for a period of twenty-five years, from 1860 to 1884, inclusive:

TABLE LXIV.—CONSUMPTION.—*Number, Locality and Parentage.*

COUNTIES.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	Total, 25 years, 1860-1884.
BRISTOL COUNTY.																		
Total deaths, stated causes	146	150	184	173	159	162	148	201	187	141	209	203	183	197	199	185	221	4,135
Consumption.....	26	16	23	16	18	21	19	27	23	16	19	25	36	19	21	12	23	543
Percentage	17.81	10.67	12.50	8.24	11.32	12.97	12.83	13.43	12.30	11.35	9.09	12.31	19.67	9.64	10.50	6.48	10.35	13.13
KENT COUNTY.																		
Total deaths, stated causes	238	281	248	241	252	263	209	251	249	277	293	313	288	283	268	355	385	6,206
Consumption.....	46	63	38	42	32	43	28	42	41	38	45	36	51	39	37	45	43	1,078
Percentage	19.33	22.42	13.30	17.43	12.69	16.35	13.39	16.73	16.47	13.72	15.35	11.20	17.71	13.78	13.43	12.70	11.20	17.37
NEWPORT COUNTY.																		
Total deaths, stated causes	271	214	262	366	221	277	280	243	265	330	324	346	378	401	463	408	433	7,869
Consumption.. ..	37	23	29	44	26	41	45	33	31	45	34	51	46	55	43	47	57	1,086
Percentage	13.66	10.75	11.06	12.02	11.77	14.80	16.07	13.58	11.69	13.64	10.40	14.74	12.17	13.72	10.67	11.52	13.16	13.80
PROVIDENCE Co. TOWNS.																		
Total deaths, stated causes	964	989	1,331	1,389	1,217	1,230	1,110	1,301	1,308	1,233	1,437	1,451	1,509	1,656	1,723	1,918	2,087	28,161
Consumption.....	172	195	321	197	136	201	211	222	229	197	189	220	224	257	248	273	276	4,799
Percentage	17.84	19.72	16.73	14.18	11.41	16.34	19.01	15.96	17.51	15.98	15.35	15.16	14.82	15.52	14.13	14.20	13.05	17.04

TABLE LXIV.—CONSUMPTION.—*Number, Locality and Percentage.*—Continued.

COUNTIES.	1870	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	Total, 25 years, 1860-1884.
PROVIDENCE CITY.																		
Total deaths, stated causes	1,249	1,239	1,581	1,725	1,965	1,894	1,850	1,932	1,973	2,017	2,063	2,130	2,230	2,351	2,227	2,157	2,341	39,195
Consumption.....	238	185	242	230	270	297	284	294	305	293	322	344	351	364	344	348	368	6,374
Percentage	19.06	16.74	15.31	13.33	13.74	15.68	15.35	15.22	15.46	14.53	15.60	16.15	15.73	15.48	15.43	16.10	15.65	16.26
WASHINGTON COUNTY.																		
Total deaths, stated causes	233	222	265	292	263	284	306	240	249	220	270	226	215	208	279	307	331	5,711
Consumption.....	56	35	49	51	44	47	68	43	47	48	33	36	29	32	46	56	59	1,031
Percentage	24.04	15.76	18.49	17.47	16.73	16.55	22.22	17.91	18.88	21.82	12.22	13.27	13.49	15.40	16.28	17.93	17.52	18.05
WHOLE STATE.																		
Total deaths, stated causes	3,101	3,095	3,871	4,186	4,077	4,110	3,903	4,258	4,231	4,218	4,596	4,669	4,804	5,096	5,099	5,330	5,798	91,477
Consumption.....	475	527	597	580	529	650	655	661	676	637	642	706	737	766	739	781	826	14,911
Percentage	18.53	17.03	15.41	13.86	12.96	15.79	16.78	15.52	15.98	15.10	14.01	15.12	15.33	15.63	14.34	14.42	14.12	16.30

As might be expected, the proportion of deaths from consumption, to the whole number from known causes, varies from year to year.

Compared with 1885, the proportion in Bristol county was nearly four per cent. larger in 1886, and about one and one-half per cent. larger in Newport county.

In the other counties, Providence city and the entire State, the proportions were smaller in 1886 than in the previous year.

It will be seen, in Table LXIV, that the percentage of deaths from consumption in 1886, in every division of the State, was considerably smaller, in proportion to whole number of deaths, than the average of twenty-five years previous to 1885, and smaller in the whole State than in any previous year, excepting the years 1873 and 1874.

CONSUMPTION. *Proportion of Deaths to Population.*

1885.

	Persons, one death to every		In every 1,000 of population.
Bristol County.....	.945.....	or.....	1.06
Kent County.....	.480.....	or.....	2.09
Newport County.....	.602.....	or.....	1.66
Providence County Towns....	.375.....	or.....	2.66
Providence City.....	.339.....	or.....	2.95
Washington County....	.401.....	or.....	2.49
Entire State.....	.389.....	or.....	2.57

CONSUMPTION. *Proportion of Deaths to Population.*

1886.

	Persons, one death to every		In every 1,000 of population.
Bristol County.....	.505.....	or.....	1.98
Kent County.....	.515.....	or.....	1.94
Newport County.....	.513.....	or.....	1.95
Providence County Towns....	.391.....	or.....	2.55
Providence City.....	.326.....	or.....	3.06
Washington County .....	.383.....	or.....	2.61
Entire State.....	.376.....	or.....	2.66

It will be noticed that, although the deaths from consumption in 1886 were less in proportion to the deaths from all other causes than in 1885, the ratio of deaths to population from that cause, in 1886, was slightly larger than in 1885.

The subject of consumption as a cause of death, and in various relations, was presented at considerable length in the Thirty-Third Registration Report, and included the statistics of twenty-five years previous to 1885. These statistics, compiled with a large amount of labor, present many facts of interest, to which the reader desirous of further investigation of this the most universal and fatal of all diseases is respectfully referred.

CROUP.

There were 90 decedents from croup, in Rhode Island, in 1886. There were 94 in 1885, 80 in 1884, 71 in 1883, 77 in 1882, and 101 in 1881.

Sex.—Of the 90 decedents from croup, in 1886, there were 45 males and 45 females, a proportion of 100 males to each 100 females, which is not in accordance with the rule of twenty-five years, in which there has been a preponderance of males.

Parentage.—There were 39 decedents of American parentage, and 51 of foreign parentage. The proportions were in the ratio of 131 of foreign to each 100 of American parentage.

Age.—There were 18 of the decedents under one year of age, 16 of one year and under two, 41 of two years and under five, and 12 between five and ten, and 3 above twenty years of age.

Of the 90 deaths from croup 56 occurred in Providence county.

DIARRHŒA AND DYSENTERY.

There were 159 decedents from diarrhœa and dysentery, in 1886.

Sex.—Of the 159, 64 were males, and 95 were females, or in the ratio of about 67 males to each 100 females, a very unusual proportion.

Parentage.—There were, of the 159 decedents, 70 of American parentage, and 89 of foreign parentage, or a proportion of about 126 of foreign parentage to every 100 of American.

Age.—There were 99 of the decedents from diarrhœa and dysentery under 5 years of age, and there were 14 over 70 years of age, leaving 45 for all the years between 5 and 70. One, age not stated.

Locality.—Of the 159 decedents 132 were in Providence county. No deaths from diarrhœa, and but one from dysentery, reported from Newport county.

Season.—There were 90 of the deaths from diarrhœa and dysentery that occurred during the months of July, August and September.

DIPHTHERIA.

The number of deaths from diphtheria, in 1886, was 228.

Sex.—Of the 228 decedents, 98 were males, and 130 were females, or a proportion of 75 males to each 100 females.

Parentage.—There were 101 of American, and 127 of foreign parentage, a proportion of about 44 of American and 56 of foreign in each 100 decedents.

Season.—There were 56 deaths from diphtheria in the first quarter, 48 in the second quarter, 46 in the third quarter, and 78 in the fourth quarter.

Age.—There were 148 under five years of age, and 54 between five and ten. One case of 72 years of age reported.

Locality.—Of the 228 decedents, 162 were in Providence county; 21 in Kent county; 20 in Bristol county; 23 in Newport county; and 2 in Washington county.

CROUP AND DIPHTHERIA.

For the purpose of comparison of the two diseases, from year to year, the following Table will show the number of deaths and the sex of the decedents in Rhode Island, from croup and from diphtheria, in the aggregate of seven years from 1858 to 1864, inclusive, and also the number, the sex and the *parentage* of the decedents from croup and from diphtheria, in each of the last twenty-two years, from 1865 to 1886, inclusive:

TABLE LXV.

YEARS.	CROUP.					DIPHTHERIA.				
	Number of Deaths	SEX.		PARENTAGE.		Number of Deaths.	SEX.		PARENTAGE.	
		Males.	Females.	American.*	Foreign.*		Males.	Females.	American.	Foreign.
7 years, 1858-1864.....	517	264	253	.....	.....	629	272	357	.....	.....
1865.....	94	44	50	32	62	82	41	41	62	20
1866.....	53	26	27	22	31	64	26	38	36	28
1867.....	50	25	25	21	29	31	14	17	19	12
1868.....	30	13	17	14	16	20	8	12	11	9
1869.....	41	19	22	14	27	33	18	15	19	14
1870.....	53	29	24	25	28	33	17	16	18	15
1871.....	72	39	33	31	41	57	23	34	29	28
1872.....	66	37	29	17	49	48	24	24	35	13
1873.....	68	30	38	35	33	45	24	21	35	10
1874.....	65	39	26	38	27	59	30	29	37	22
1875.....	96	53	43	43	53	33	17	16	18	15
1876.....	102	50	52	42	60	159	77	82	69	90
1877.....	95	48	47	34	61	492	239	253	233	259
1878.....	93	45	48	43	50	435	224	211	201	234
1879.....	96	58	38	40	56	259	121	138	143	116
1880.....	66	32	34	27	39	152	73	79	75	77
1881.....	101	45	56	58	63	216	106	110	118	98
1882.....	77	41	36	32	45	101	48	53	55	46
1883.....	71	32	39	33	38	95	39	56	45	50
1884.....	80	40	40	32	48	119	65	54	47	72
1885.....	94	45	49	42	52	99	47	52	48	51
1886.....	90	45	45	39	51	228	98	130	101	127
Total, 29 years.....	2,170	1,099	1,071	694	959	3,489	1,651	1,838	1,454	1,408

During the twenty-nine years the whole number of deaths from croup was 2,170, and the number from diphtheria was 3,489.

For every 100 deaths from croup there were 160 deaths from diphtheria.

* Parentage not reported previous to 1865.

CROUP. Sex and Parentage.

The proportions of the sexes of the decedents from croup, in the aggregate of twenty-nine years, were as follows: To every 100 female decedents there were 102.6 male decedents; or about 52 males and 48 females in every 100 decedents.

During the twenty-two years from 1865 to 1886, inclusive, the decedents from croup, of American parentage, numbered 694, and of foreign parentage 959. To every 100 decedents of American parentage there were 138 of foreign parentage; or about 41 of American and 59 foreign in every 100 decedents.

DIPHTHERIA. Sex and Parentage.

Of the 3,489 decedents from diphtheria, in the aggregate of twenty-nine years, there were 1,651 males and 1,838 females; a proportion of 111.3 females to every 100 males; or 52 females and 47 males in every 100 decedents.

Of the parentage of the decedents from diphtheria, during the last twenty-two years, 1,454 were of American, and 1,406 of foreign parentage. There were 103.4 of American to every 100 of foreign; or 52 of American and 48 of foreign parentage in every 100 decedents.

SEASON AND MORTALITY.

The following Table, presented in previous reports, will show the influence of season, in regard to mortality from croup and scarlatina for thirty years, and diphtheria for twenty-five years; and in which these diseases may be compared. The Table will give the average quarterly percentages of deaths from each cause:

TABLE LXVI.

MONTHS.	CROUP. 1853-1882.		DIPHTHERIA. 1858-1882.		SCARLATINA. 1853-1882.	
	Number of deaths.	Per cent.	Number of deaths.	Per cent.	Number of deaths.	Per cent.
First Quarter.....	682	31.70	717	23.58	1,631	33.46
Second Quarter.....	356	16.60	558	18.35	1,254	25.72
Third Quarter.....	265	12.30	629	20.04	715	15.48
Fourth Quarter.....	848	39.40	1,136	38.03	1,212	25.54
Totals.....	2,151	100 00	3,040	100 00	4,872	100.00

FEVERS, TYPHOID, ETC.

The number of decedents, whose deaths were returned as having been caused by "fever" of some form, was 169. Deaths from puerperal fever are not included.

The term "fever" includes the following types of febrile diseases, as may be seen in Table VIII, on page 19: "fevers," unspecified, 5; "malarial," 43; "Typhoid," 121.

The following Table exhibits, for each of the last twenty-two years, the number and the percentage, and the sex and parentage of the decedents from fevers, and the number in each division of the State:

TABLE LXVII.

YEARS.	TYPHOID FEVER, ETC.											
	Whole Number.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Providence City.	Washington County.
1865.....	229	6.4	114	115	149	80	8	17	32	32	79	21
1866.....	150	6.0	73	77	82	68	7	5	32	54	45	7
1867.....	119	4.1	60	59	84	35	9	10	17	47	31	5
1868.....	84	2.9	45	39	57	27	4	5	7	30	23	15
1869.....	101	3.0	53	48	79	22	7	7	1	37	33	16
1870.....	153	4.7	66	87	80	73	5	11	14	57	49	17
1871.....	125	3.7	60	65	69	56	2	8	10	41	51	13
1872.....	179	4.2	87	92	91	86	4	12	6	75	65	17
1873.....	172	3.9	73	99	113	59	4	9	9	61	56	33
1874.....	117	2.8	57	60	56	61	1	10	3	37	58	8
1875.....	147	3.4	73	74	90	57	1	4	6	49	69	18
1876.....	126	3.0	65	61	71	55	5	9	13	44	33	22
1877.....	134	3.0	63	71	65	69	8	10	8	52	44	12
1878.....	150	3.4	68	82	77	73	13	13	6	59	47	12
1879.....	114	2.7	47	67	63	51	4	13	6	44	40	7
1880.....	158	3.4	74	84	94	64	8	12	5	66	52	15
1881.....	143	2.8	74	69	74	69	4	13	14	58	41	13
1882.....	229	4.7	111	118	100	129	6	11	5	56	145	6
1883.....	258	4.8	146	112	117	141	9	16	10	82	134	7
1884.....	165	3.2	83	82	78	87	7	7	12	66	64	9
1885.....	158	2.9	71	87	70	88	6	14	8	69	53	9
1886.....	169	2.9	78	91	76	93	6	8	11	66	70	8
Total.....	3,380	3.6	1,641	1,739	1,835	1,545	128	224	225	1,232	1,282	290

The percentage of deaths from fever, in 1886, in proportion to total mortality, was smaller than in any year since 1881.

Sex.—Of the 169 decedents 78 were males, and 91 were females; or a proportion of about 86 males to every 100 females.

During the period of twenty-two years, 1865 to 1886, inclusive, the proportions of the sexes of the decedents from “fever,” in Rhode Island, were 105.3 females to every 100 males.

Parentage.—There were 76 decedents from fever, of American parentage, in 1886, and 93 of foreign parentage, a proportion of about 54 of foreign and 46 of American in every 100 decedents.

The following Table shows the number of decedents from fevers, in each division of ages, in each of the last twenty-two years, in the State of Rhode Island:

TABLE LXVIII.

TYPHOID FEVER.		PERIODS OF LIFE.										
YEARS.		Under 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 & over.	Not stated.
1865.....		35	18	46	54	30	14	18	7	5	2	...
1866.....		23	10	21	26	21	16	9	14	10	...	..
1867.....		17	6	24	33	12	11	8	4	2	2	1
1868.....		10	7	10	21	8	8	10	4	5	...	...
1869.....		10	8	14	28	9	7	9	8	6	2	...
1870.....		15	13	28	39	16	20	7	7	6	1	...
1871.....		13	10	20	28	18	16	9	4	5	2	...
1872.....		17	18	34	54	20	9	12	11	3	1	...
1873.....		27	12	34	31	25	13	13	7	8	2	...
1874.....		10	14	26	32	9	5	10	3	6	2	...
1875.....		23	14	19	43	18	10	10	6	4	...	...
1876.....		21	10	15	24	14	9	6	16	6	3	2
1877.....		22	13	13	36	20	8	5	7	2	2	1
1878.....		17	16	27	47	13	11	12	2	3	2	...
1879.....		19	7	14	26	15	6	3	12	8	3	1
1880.....		25	12	24	43	23	12	10	5	3	...	1
1881.....		25	9	19	27	14	11	9	12	11	4	...
1882.....		24	22	44	69	27	14	9	10	9	1	...
1883.....		36	25	46	75	31	12	11	10	8	2	2
1884.....		24	13	19	47	22	9	12	10	5	3	1
1885.....		35	12	16	25	26	11	11	12	6	4	...
1886.....		29	9	25	41	20	14	17	8	5	1	...
Totals.....		477	278	537	859	411	246	220	179	126	39	9

Of the 3,380 decedents from fever, during the last twenty-two years, 1,292 were under 20 years of age, and 1,270 were between 20 and 40 years of age. There was, therefore, about 38 per cent. of the decedents under 20 years of age, and about the same per cent. between 20 and 40; or about 76 per cent. of the whole number of decedents from fevers were under 40 years of age.

TABLE LXIX.

Comparative exhibit of the percentages of deaths from Typhoid Fever, to total deaths from specified causes, in four New England States, for eleven years, 1876-1886.

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	Annual per cent.
Rhode Island.....	3.0	3.0	3.4	2.7	3.4	2.8	4.7	4.8	3.2	2.9	2.9	3.3
Massachusetts....	2.7	2.7	2.3	1.9	2.5	2.9	2.9	2.3	2.4	2.0	2.1	2.5
Connecticut.....	3.6	3.3	2.7	1.8	2.5	2.5	3.1	2.1	2.5	1.1	.....	2.5
Vermont.....	4.2	4.8	3.4	2.7	3.5	5.5	3.4	3.1	.....	.....	.....	3.8

DISEASES OF THE HEART.

The number of decedents from diseases of the heart, as reported in 1886, was 330. The number is smaller by 19 than that of 1885.

Sex.—There were 152 male decedents, and 178 female decedents; a proportion of 87 males to every 100 females.

Parentage.—Of the 330 decedents from diseases of the heart, in 1886, there were 184 of American parentage, and 146 of foreign, a proportion of 131 of American parentage to every 100 of foreign. This is in accordance with the invariable rule of the whole period of registration.

The following Table exhibits, for each of the last twenty-two years, 1865 to 1886, inclusive, the number and percentage, and the sex and parentage of the decedents from diseases of the heart, and the number of the same in each division of the State:

TABLE LXX.

YEARS.	DISEASES OF THE HEART.											
	Whole Number.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Providence City.	Washington County.
1865.....	98	2.88	51	47	65	33	6	5	8	27	47	5
1866.....	115	3.87	58	57	90	25	7	8	10	41	40	9
1867.....	114	3.94	67	47	81	33	4	9	7	37	49	8
1868.....	116	3.96	58	58	79	37	5	8	12	35	52	4
1869.....	128	3.78	75	53	79	49	2	13	11	36	62	4
1870.....	117	3.61	77	40	77	40	4	10	8	35	59	1
1871.....	144	4.30	78	66	91	53	4	7	8	42	77	6
1872.....	189	4.45	104	85	119	70	5	9	10	59	83	13
1873.....	189	4.29	83	106	122	67	4	11	14	48	101	11
1874.....	214	5.06	109	105	150	64	6	6	28	50	106	18
1875.....	186	4.31	84	102	113	73	2	13	22	49	88	12
1876.....	166	4.03	81	80	109	57	9	11	10	38	86	12
1877.....	182	4.09	94	88	110	72	3	7	9	57	93	13
1878.....	166	3.73	88	78	109	57	5	11	15	38	83	14
1879.....	202	4.78	114	88	127	75	8	20	16	38	111	9
1880.....	231	5.03	125	106	146	85	9	21	29	59	104	9
1881.....	264	5.65	131	133	154	110	9	21	24	73	121	16
1882.....	255	5.31	116	139	162	93	8	16	23	55	142	11
1883.....	325	6.20	167	158	179	146	8	27	30	70	172	18
1884.....	285	5.60	135	150	163	122	6	16	25	87	139	12
1885.....	349	6.48	162	187	198	151	13	27	25	94	159	31
1886.....	330	5.20	152	178	181	146	12	20	18	82	168	30
Total, 22 years..	4,365	4.53	2,214	2,151	2,687	1,678	139	296	362	1,150	2,152	266

Sex.—Of the 4,365 persons deceased from diseases of the heart, in the last twenty-two years, 2,214 were males, and 2,151 were females; or 103 males to each 100 females.

Parentage.—Of the 4,365 decedents, during twenty two years, 2,687 were of American parentage, and 1,678 of foreign.

The proportions would, therefore, stand as follows: To every 100 of foreign parentage there were about 160 of American; or about 62 American and 38 of foreign parentage in each 100 deaths.

The following Table shows the number of decedents from diseases of the heart, in each divisional period of life, in each of the last twenty two years:

TABLE LXXI.

YEARS.	Under 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 and over.	Not stated.
1865.....	14	4	6	7	22	17	19	9	.....
1866.....	18	8	14	17	10	23	21	4	.....
1867.....	11	11	10	13	22	16	27	4	.....
1868.....	15	5	13	11	14	28	25	5	.....
1869.....	21	4	14	18	20	22	21	7	1
1870.....	19	6	11	13	20	21	23	3	1
1871.....	9	12	10	19	23	36	28	6	1
1872.....	27	12	22	19	31	36	29	13	.....
1873.....	19	11	28	18	25	35	42	9	2
1874.....	20	16	26	21	27	50	40	12	2
1875.....	14	16	25	20	32	29	41	9	.....
1876.....	14	10	15	19	20	38	39	10	1
1877.....	15	11	20	18	27	45	33	13	.....
1878.....	16	8	18	16	26	36	35	11	.....
1879.....	19	9	13	25	33	51	36	16	.....
1880.....	15	10	18	23	38	49	40	28	1
1881.....	32	13	26	23	37	49	53	21	.....
1882.....	22	17	24	25	36	51	61	17	2
1883.....	39	13	21	33	52	65	76	26	.....
1884.....	15	25	21	32	45	61	50	32	4
1885.....	38	13	24	42	61	69	78	24	.....
1886.....	39	18	28	38	52	68	69	18	.....
Total.....	451	252	407	480	673	895	895	297	15

The results of twenty-two years of registration, with record of ages of decedents from diseases of the heart, show in periods of twenty years of life, the following percentages:

Under 20 years of age.....	10.3 per cent.
Between 20 and 40.....	15.1 per cent.
Between 40 and 60.....	26.4 per cent.
Between 60 and 80.....	40.6 per cent.
Over 80.....	7.3 per cent.
Not stated.....	3.0 per cent.

100.0 per cent.

It will be seen that about 41 per cent. of all the deaths from diseases of the heart were of persons over sixty years of age, and under eighty.

Diseases of the heart have acquired large importance as a cause of death. From 28.8 in every 1,000 deaths from all causes, in 1865, heart diseases have gradually increased to 74 in every 1,000, in 1886.

PNEUMONIA.

There were 481 decedents from pneumonia, in 1886. The number is 16 more than in 1885, but the percentage to whole number of deaths is slightly smaller.

In 1875 the proportion to whole number of deaths was more than one per cent. larger, that is, 9.3 in every one hundred; in 1885 it was 8.6 in every hundred; and in 1886 was 8.2 in every one hundred.

Sex.—Of the 481 decedents from pneumonia, and including congestion of the lungs, 232 were males and 249 were females; or 93.2 males to each 100 females.

Parentage.—By parentage there were 234 of American and 247 of foreign parentage. The proportion of decedents from pneumonia were about 94 of American to each 100 of foreign parentage.

Season.—There were 248, or over one-half, of the deaths that occurred during the first four months of the year. The largest mortality by months was 77 in March, and 60 in April.

The following Table shows, for each of the last twenty-two years, the number and the percentage, with the sex and the parentage of the decedents from pneumonia; and the number in each year, in each division of the State:

TABLE LXXII.

YEARS.	PNEUMONIA.											
	Whole Number.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Providence City.	Washington County.
1865.....	175	5.1	80	95	110	65	8	11	21	49	74	12
1866.....	193	6.5	94	99	127	66	13	17	13	59	81	10
1867.....	172	5.9	68	104	103	69	8	12	12	56	68	16
1868.....	191	6.6	99	92	120	71	9	5	16	54	92	15
1869.....	190	5.6	104	86	110	80	7	10	10	63	88	12
1870.....	182	5.6	102	80	96	86	6	12	15	55	78	16
1871.....	218	6.5	104	114	129	89	12	21	11	68	85	21
1872.....	229	5.4	119	110	125	104	11	1	9	74	120	14
1873.....	234	5.3	127	107	143	91	11	9	10	65	123	16
1874.....	250	5.9	118	132	143	107	6	13	7	73	136	15
1875.....	400	9.3	199	201	243	157	14	27	25	105	198	31
1876.....	339	8.2	164	175	162	177	13	23	16	97	163	27
1877.....	226	5.1	104	122	127	99	10	7	14	81	98	16
1878.....	317	7.1	143	174	176	141	10	11	18	110	140	28
1879.....	311	7.4	148	163	163	148	7	15	15	103	156	15
1880.....	364	7.9	180	184	177	187	26	16	18	92	192	20
1881.....	327	6.5	177	150	190	137	10	23	17	81	174	22
1882.....	344	7.2	178	166	163	181	10	22	24	91	176	21
1883.....	400	7.8	192	208	198	202	19	21	34	108	204	14
1884.....	363	7.1	167	196	192	171	10	13	17	125	172	26
1885.....	465	8.6	214	251	271	194	15	20	33	151	227	19
1886.....	481	8.2	232	249	234	247	17	29	37	161	209	28
Total, 22 years..	6,371	6.7	3,113	3,258	3,502	2,869	252	338	392	1,921	3,054	414

Sex.—Of the 6,371 decedents from pneumonia in twenty-two years, 1865 to 1886, inclusive, 3,113 were males and 3,258 were females; a proportion of 104.6 females to every 100 males.

Parentage.—In relation to parentage, there were of the 6,371 decedents 3,502 of American and 2,869 of foreign; or 122 of American parentage to every 100 of foreign.

TABLE LXXIII.

Exhibiting the number of decedents from pneumonia, in each of the several periods of life, during each of the last twenty-two years, from 1865 to 1886, inclusive.

YEARS.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 & over.	Not stated.
1865.....	65	4	2	....	14	11	15	17	21	21	5	....
1866.....	57	4	4	5	12	10	14	21	25	32	9	...
1867.....	57	9	2	3	10	11	13	16	25	13	12	1
1868.....	70	4	3	3	15	8	16	13	19	27	13	....
1869.....	64	11	1	2	11	12	9	28	25	16	11	....
1870.....	84	6	5	4	6	7	8	14	20	19	8	1
1871.....	71	7	2	7	10	17	16	16	35	17	19	1
1872.....	83	5	1	7	17	20	19	22	24	19	11	1
1873.....	105	4	8	3	10	14	16	17	24	23	10	....
1874.....	76	9	4	6	17	17	25	21	40	27	8	....
1875.....	120	9	3	8	22	30	35	39	61	43	28	2
1876.....	116	5	4	3	20	20	32	35	48	39	17	....
1877.....	79	2	....	7	15	15	24	27	22	24	9	2
1878.....	115	9	4	10	14	17	28	20	42	45	13	....
1879.....	102	8	1	3	14	27	26	35	38	38	9	....
1880.....	95	18	3	16	14	33	37	46	47	43	12	....
1881.....	102	4	2	5	15	22	26	45	48	31	26	1
1882.....	71	3	4	14	22	36	49	33	41	46	21	4
1883.....	88	15	2	13	32	33	40	53	49	46	27	2
1884.....	103	14	5	11	23	34	24	32	53	37	23	4
1885.....	121	9	10	8	23	29	50	49	76	59	29	2
1886.....	111	10	7	19	32	35	50	58	74	55	30	....
Totals.....	1,955	169	77	157	372	458	572	657	857	720	360	21

Age.—Of the 6,371 decedents from pneumonia, during the period of twenty-two years, 1,955, or nearly one-third, were under five years of age. During the periods of life of over fifty years of age the number of decedents was 2,594, or about 40 per cent. of the whole number.

The following summary will present the percentages in round numbers:

Under five years of age.....	31 per cent.
Five years and under twenty.	6 per cent.
Twenty years and under fifty.....	23 per cent.
Fifty years and over.....	40 per cent.

SCARLATINA.

The number of deaths returned as having been caused by scarlatina, in 1886, was 88. The number is 3 less than in 1885.

Sex.—Of the 88 decedents from scarlatina 46 were males, and 42 were females.

Parentage.—There were 29 of American parentage, and 59 of foreign; or a proportion of about 200 of foreign parentage to every 100 of American.

During a period of twenty-two years there were 1,519 decedents from scarlatina of American parentage, and 1,785 decedents of foreign; or a proportion of 117.5 of foreign to each 100 of American parentage.

The following Table will present the statistics of scarlatina for the last thirty-two years, from 1855 to 1886, inclusive, the number and percentage and sex of the decedents from scarlatina, and the number from scarlatina in each division of the State. It also shows, from 1865 to 1886, inclusive, the parentage of the decedents from scarlatina:

TABLE LXXIV.

YEARS.	SCARLATINA.											
	Whole Number.	Per cent.	SEX.		PARENTAGE.		DIVISIONS OF THE STATE.					
			Males.	Females.	American.	Foreign.	Bristol County.	Kent County.	Newport County.	Providence County Towns.	Providence City.	Washington County.
10 yrs., 1855-1864.	1,266	4.9	611	655	.....	.....	46	62	189	334	568	57
1865.....	255	7.5	130	125	134	121	33	17	3	86	108	8
1866.....	28	0.9	15	13	12	16	5	.....	8	12	3	.....
1867.....	14	0.5	6	8	10	4	1	.....	1	2	10	.....
1868.....	93	3.2	47	46	32	61	2	3	3	34	50	1
1869.....	286	8.4	126	160	128	158	17	23	12	72	138	34
1870.....	75	2.3	37	38	28	47	1	6	3	22	35	8
1871.....	66	1.9	41	25	31	35	1	3	1	37	21	13
1872.....	53	1.2	22	31	22	31	.....	1	4	27	19	2
1873.....	287	6.5	124	163	163	124	4	2	42	80	132	27
1874.....	462	10.9	231	231	176	296	27	17	1	133	268	16
1875.....	185	4.3	85	100	121	64	8	30	3	35	94	15
1876.....	80	1.9	34	46	42	38	3	2	7	21	35	12
1877.....	62	1.4	26	36	29	33	14	4	3	21	12	8
1878.....	86	1.9	41	45	35	51	3	5	3	14	57	4
1879.....	311	7.4	164	147	130	181	3	6	4	37	255	6
1880.....	468	10.0	215	253	216	252	22	30	11	143	243	19
1881.....	138	3.0	79	59	62	76	11	25	12	41	45	4
1882.....	45	0.9	24	21	16	29	.....	3	16	7	18	1
1883.....	34	0.6	17	17	14	20	1	1	5	9	16	2
1884.....	97	1.8	39	58	41	56	.....	.....	8	28	57	4
1885.....	91	1.7	36	55	48	43	.....	3	6	24	38	20
1886.....	88	1.5	46	42	29	59	.....	13	2	41	30	2
Total.....	4,570	4.9	2,196	2,364	1,519	1,785	202	246	347	1,250	2,252	253

COMPARATIVE RESULTS.

The following Table presents concisely the percentage of *total mortality* from *specified* causes of death, resulting from twenty-four *prominent* causes, as reported in 1886, in the whole State, and in the several divisions of the State, the percentage of each division computed on the mortality of that division:

TABLE LXXV.

CAUSES OF DEATH.	Bristol County.	Kent County.	Newport County Towns.	Providence County Towns.	Washington County.	Newport City.	Providence City.	Whole State.
Accidents (all kinds).....	7.20	4.42	5.42	2.91	2.91	3.00	3.80	3.22
Apoplexy and Paralysis.....	4.95	6.76	10.85	5.81	5.11	5.12	10.28	5.69
Brain, Diseases of.....	1.90	3.64	.77	3.87	3.25	3.31	1.18	3.11
Bronchitis.....	1.35	1.04	.77	2.56	3.47	3.63	.30	2.96
Cancer.....	2.70	2.86	1.55	2.25	1.74	3.70	3.60	2.77
Cholera Infantum.....	1.80	7.54	3.87	3.24	8.74	5.11	4.50	6.27
Consumption.....	10.35	11.20	10.85	13.98	13.05	15.65	17.52	14.12
Convulsions.....	2.25	1.30	1.55	2.90	1.33	2.81	1.76	2.06
Croup.....	.90	4.94	3.10	2.58	1.14	1.36	.59	1.55
Debility †.....	.45	.26	.77	3.24	1.69	.25	.89	.98
Diarrhoea.....	1.35	1.56	.....	.....	2.28	1.44	.59	1.59
Diphtheria.....	9.00	5.46	3.87	5.82	3.04	4.16	.59	3.90
Dysentery.....	1.80	1.30	.....	.32	1.18	1.06	1.78	1.13
Fevers.....	2.70	2.08	1.55	2.90	3.13	2.97	2.36	2.87
* Heart, Diseases of.....	6.30	6.24	3.13	6.42	4.82	7.28	9.57	6.20
Hooping Cough.....	1.80	.78	.....	.....	.86	.98	.30	.83
Hydrocephalus.....	.90	.26	.77	.....	.43	.51	.....	.41
Kidneys, Diseases of.....	1.35	2.60	6.20	4.52	1.74	3.00	3.57	2.64
Liver, Diseases of.....	1.80	1.04	.....	.77	.85	1.42	.30	1.08
† Marasmus.....	.....	1.04	.....	.....	.09	.25	.30	.22
Old Age.....	7.20	6.24	11.63	6.78	4.73	3.10	8.02	4.69
Pneumonia.....	7.65	7.54	11.62	7.10	7.56	8.88	8.32	8.18
Scarlatina.....	.....	3.38	.....	.64	1.94	1.27	.59	1.50
Stomach, Diseases of.....	.90	.78	.77	1.28	1.28	.80	.60	.99

* Including diseases of the circulatory system. † Not including children under 5 years of age.

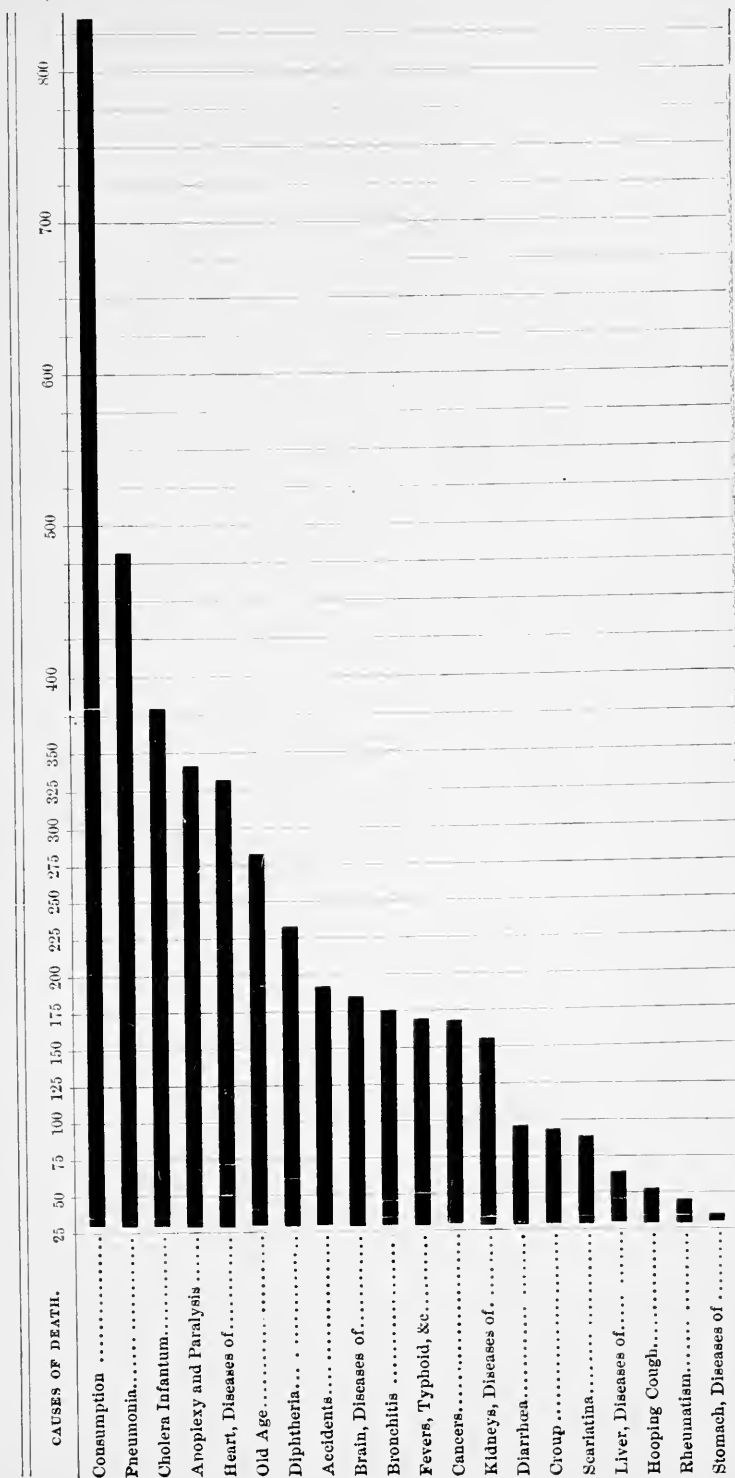
The following Table shows the percentages comparatively of several prominent causes of death, in the aggregate of total mortality from specified causes in Rhode Island, during a period of ten years, from 1876 to 1885, inclusive:

TABLE LXXVI.

CAUSES OF DEATH.	YEARS. *									
	1885.	1884.	1883.	1882.	1881.	1880.	1879.	1878.	1877.	1876.
Accidents (all kinds).....	3.09	3.80	2.84	3.44	3.04	3.51	2.43	2.89	3.10	2.94
Apoplexy and Paralysis.....	5.38	5.78	5.39	5.52	5.23	4.67	5.21	4.45	4.25	4.22
Brain, Diseases of.....	3.61	2.97	3.50	3.60	3.84	3.44	3.73	3.28	3.68	3.75
Bronchitis.....	3.09	2.29	2.04	2.08	1.80	1.98	1.47	1.89	1.62	1.46
Cancer.....	3.59	3.03	3.30	2.75	3.11	2.72	2.96	2.82	3.17	2.72
Cholera Infantum.....	5.16	6.31	4.73	6.77	5.15	5.43	3.81	3.97	6.08	6.41
Consumption.....	14.45	14.34	15.01	15.33	15.12	14.02	15.09	15.98	15.52	16.78
Convulsions.....	2.06	2.70	2.47	2.29	2.18	2.88	2.47	2.65	1.95	2.23
Croup.....	1.74	1.55	1.40	1.60	2.16	1.45	2.28	2.20	2.23	2.61
Debility.....	2.45	2.87	1.14	2.69	2.61	3.09	2.35	1.91	2.65	2.80
Diarrhoea.....	1.55	2.20	2.55	1.87	1.65	1.52	1.26	1.25	2.11	1.87
Diphtheria.....	1.83	2.31	1.88	2.10	4.63	3.40	6.14	10.28	11.56	4.07
Dysentery.....	.68	.79	1.06	1.42	.90	.61	1.04	.95	1.22	1.28
Fevers.....	2.93	3.24	5.12	4.60	3.05	3.37	2.70	3.94	3.55	3.69
Heart, Diseases of.....	6.48	5.60	6.35	5.31	5.68	5.03	4.78	3.92	4.28	4.25
Hooping Cough.....	.79	.83	.17	1.48	1.46	.44	1.02	1.28	.75	1.23
Hydrocephalus.....	.31	.81	.87	1.02	1.20	1.01	1.36	1.65	1.29	1.74
Kidneys, Diseases of.....	3.14	2.52	2.43	1.79	1.69	2.02	1.88	1.89	1.57	1.28
Liver, Diseases of.....	.87	.88	.83	1.21	.82	1.20	1.17	1.06	1.06	1.12
Marasmus.....	2.15	1.62	2.02	1.62	1.11	1.27	1.16	1.30	.99	1.13
Old Age.....	4.95	5.68	5.22	5.89	5.29	5.95	5.22	5.25	5.00	6.18
Pneumonia.....	8.65	7.14	7.84	7.16	7.01	7.90	7.37	7.49	5.31	8.69
Scarlatina.....	1.70	1.88	.64	.94	2.96	9.99	7.37	2.03	1.46	2.05

* See percentages for 1886 on the next preceding page.

Diagram III. Exhibiting the comparative mortality by absolute number of decedents, from twenty principal causes of death in Rhode Island, in 1886.



NOMENCLATURE OF DISEASES,

OR

CAUSES OF DEATH.

NAMES OF CAUSES OF DEATH.

It should be stated that the nomenclature of diseases in the nosological arrangement on the following pages is not intended to include the names of the whole list of morbid phenomena affecting the human organism, but the names of such only as are directly the **cause of death**, or such as ordinarily predispose to or set in motion the morbid processes that end in death.

In the construction of the classification now adopted, use has been made of the results and conclusions of a committee of the Royal College of Physicians of England, and from such other sources as were accessible, and from examination of the classifications in use in different countries in Europe and America. It has been the design to have all these classifications based on observed facts and most advanced conclusions in relation to pathological processes and morbid conditions, inductive, causative, progressive and ultimate.

The statistical nosology will consist of two lists of causes of death,

A TABULAR LIST AND SUPPLEMENTAL LIST.

The **TABULAR LIST** comprises the chief or primary causes of death which will be used in Table X on Classification and Percentage in the preparation of the Registrar's Annual Reports, and will, therefore, include all those named in the **SUPPLEMENTAL LIST**, when the final arrangement is completed.

The **SUPPLEMENTAL LIST** is subordinate to the **TABULAR LIST**, and contains synonyms, or names of related diseases, which may be actually, or are supposed to be, causes of death, and which are in addition to those in the **TABULAR LIST**, and which are often found in **PHYSICIAN'S certificates of death**, as reported to the State Registrar. These will have a place, in alphabetical order, in Tables VIII and IX of the reports, and will be variously grouped under different heads in Table X, as the figure which precedes each cause in the **SUPPLEMENTAL LIST** will correspond with the figure of the head in the **TABULAR LIST** under which that cause is placed.

NOMENCLATURE OF CAUSES OF DEATH.

CLASSES.

- I. General Diseases.—A. SPECIFIC AND FEBRILE. (*Zymotic.*)
- II. General Diseases.—B. CACHECTIC. (*Constitutional.*)
- III. Special Diseases.—A. FUNCTIONAL OR ORGANIC. (*Local.*)
- IV. Special Diseases.—B. DEVELOPMENTAL. (*Developmental.*)
- V. Violent Deaths. — FROM INJURIES. (*Violence.*)

SUB GROUPS OR ORDERS.

CLASS I.—Zymotic Diseases.

ORDER ONE, Miasmatic. ORDER TWO, Enthetic. ORDER THREE, Dietic. ORDER FOUR, Parasitic.

CLASS II.—Constitutional Diseases.

ORDER ONE, Diathetic. ORDER TWO, Tubercular.

CLASS III.—Local Diseases.

ORDER ONE, Diseases of the Nervous System. ORDER TWO, Organs of Circulation. ORDER THREE, Organs of Respiration. ORDER FOUR, Organs of Digestion. ORDER FIVE, Urinary Organs. ORDER SIX, Reproductive Organs. ORDER SEVEN, Osseous and Locomotory Organs. ORDER EIGHT, Integumentary System.

CLASS IV.—Developmental Diseases.

ORDER ONE, Of Children. ORDER TWO, Of Women. ORDER THREE, Of Old Age. ORDER FOUR, Of Nutrition.

CLASS V.—Violent Deaths.

ORDER ONE, Accidents and Negligence. ORDER TWO, Homicide. ORDER THREE, Suicide.

STATISTICAL NOSOLOGY.

CLASS I.—Zymotic Diseases.

TABULAR LIST.

For Table X of the Registration Report.

ORDER ONE.—Miasmatic.

- I. One.—1. Carbuncle
2. Cholera, Asiatic
3. Cholera, Sporadic
4. Cholera Infantum
5. Cholera Morbus
6. Croup (Pseudo Membranous)
7. Diphtheria
8. Diarrhœa
9. Dysentery
10. Erysipelas
11. Fever, Bilious
12. Fever, Cerebro Spinal
13. Fever, Intermittent
14. Fever, Malarial
15. Fever, Typhoid
16. Fever, Typho-Malarial
17. Fever, Unspecified
18. Fever, Yellow
19. Influenza (Epidemic)
20. Measles
21. Mumps
22. Metria (Puerperal Fever).
23. Pertussis
24. Tonsillitis
25. Scarletina
26. Small Pox
27. Varicella

ORDER TWO.—Enthetic.

- I. Two.—1. Glanders
2. Gonorrhea
3. Hydrophobia
4. Malignant Pustule
5. Septicæmia
6. Syphilis

ORDER THREE.—Dietic.

- I. Three.—1. Alcoholism
2. Delirium Tremens
3. Inanition
4. Purpura and Scurvy

ORDER FOUR.—Parasitic.

- I. Four.—1. Aphthæ
2. Worms
3. Other Parasites

SUPPLEMENTAL LIST.

Synonyms or Related Diseases.

ORDER ONE.—Miasmatic.

- I. One.—1. Anthrax.
Gangrenous Boil.
4. Entero Colitis, } Infan-
Gastro Enteritis, } tile.
10. Hospital Gangrene.
Pyæmia.
Phagadæna.
Phlegmon.
15. Infantile Fever.
Typhus Fever.
20. Rotheln.
21. Parotitis.
22. Child-bed Fever.
23. Hooping Cough.
24. Quinsy.
25. Scarlet Fever.
Angina Maligna.
26. Varioloid.
27. Chicken Pox.
Miliaria.

ORDER TWO.—Enthetic.

- I. Two.—2. Stricture of the Urethra.
Gonorrheal Ophthalmia.
5. Necusia.

ORDER THREE.—Dietic.

- I. Three.—1. Intemperance.
3. Privation.
Starvation.
Neglect.

ORDER FOUR.—Parasitic.

- I. Four.—1. Thrush.
2. Tape Worm.
Trichianasis.
3. Scabies.
Hydatids.
Porrigo, Favus, etc.

CAUSES OF DEATH.

CLASS II.—Constitutional Diseases.

TABULAR LIST.

ORDER One.—Diathetic.

- II. One.—1. Gout
 2. Dropsy
 3. Anæmia
 4. Cancer, Various
 5. Cancer of Breast
 6. Cancer of Stomach
 7. Cancer of Uterus
 8. Noma (Canker)
 9. Mortification
 10. Rheumatism

ORDER Two.—Tubercular.

- II. Two.—1. Scrofula
 2. Tabes Mesenterica
 3. Phthisis (Pulmonary)
 4. Hydrocephalus
 5. Tubercular Meningitis

SUPPLEMENTAL LIST.

- II. One.—2. Anasarca.
 3. Leucocythæmia.
 Chlorosis.
 4. Soft Cancer.
 Epithelioma.
 Melanosis.
 Lupus.
 Other kinds of Cancer.
 9. Bed sore.
 Dry Gangrene.
 10. Rheumatic Carditis.
 Rheumatic Synovitis.
 Rheumatic Meningitis.

- II. Two.—1. Psoas (Lumbar) Abscess.
 White Swelling.
 Cretinism (Goitre).
 Adenitis.
 Morous Coxarius.
 Pott's Disease.
 2. Tubercular Peritonitis.
 3. Hæmoptysis.

CLASS III.—Local Diseases.

ORDER One.—Nervous System.

- III. One.—1. Cephalitis
 2. Cerebritis
 3. Apoplexy
 4. Paralysis
 5. Insanity
 6. Chorea
 7. Epilepsy
 8. Tetanus
 9. Convulsions
 10. *Brain Diseases* *

- III. One.—1. Phrenitis.
 Meningitis.
 Cerebro Spinal Meningi-
 tis. (Sporadic.)
 5. Monomania.
 Fright.
 Grief.
 Melancholia.
 Dementia.
 Rage.
 6. Hysteria.
 8. Laryngismus.
 Lockjaw.
 Trismus Nascentium.
 10. Neuralgia, Cerebral.
 Neurasthenia.
 Disease of Spinal Cord.
 Necrencephalus (Ramol-
 lissement).

ORDER Two.—Circulatory System.

- III. Two.—1. Pericarditis
 2. Aneurism
 3. *Heart Diseases* *

- III. Two.—1. Carditis.
 Endocarditis.
 3. Hypertrophia.
 Atrophia.
 Angina Pectoris.
 Syncope.
 Arteritis.
 Ossification of Arteries.
 Phlebitis.
 Hydropericardium.
 Embolus.
 Thrombosis.

* Not otherwise placed.

STATISTICAL NOSOLOGY.

CLASS III.—Local Diseases.—Continued.

TABULAR LIST.

ORDER Three.—Respiratory System.

- III. Three.—1. Epistaxis
 2. Laryngitis
 3. Bronchitis, Acute
 4. Bronchitis, Chronic
 5. Pleurisy
 6. Pneumonia
 7. Asthma
 8. *Lung Diseases* *

ORDER Four.—Digestive System.

- III. Four.—1. Gastritis
 2. Enteritis
 3. Peritonitis
 4. Ascites
 5. Ulceration of Intestines
 6. Hernia
 7. Ileus
 8. Intussusception
 9. Stricture of Intestines
 10. Fistula
 11. *Stomach Diseases* *
 12. *Pancreas Diseases* *
 13. Hepatitis
 14. Jaundice
 15. *Liver Diseases* *
 16. *Spleen Diseases* *
 16. *Bowel Diseases* *

ORDER Five.—Urinary System.

- III. Five.—1. Nephritis
 2. Ischuria
 3. Nephria (Bright's Disease)
 4. Diabetes
 5. Calculus (Gravel, &c.)
 6. Cystitis
 7. Prostate, Disease of
 8. *Kidney Diseases* *
 9. Bladder, Diseases of
 10. Testicles, Disease of

ORDER Six.—Generative System.

- III. Six.—1. FEMALE. Ovarian Dropsy
 2. *Diseases of Uterus* *

SUPPLEMENTAL LIST.

- III. Three.—2. Edema Glottidis.
 5. Empyema.
 Diaphragmitis.
 Pneumothorax.
 Hydrothorax.
 6. Pulmonary Apoplexy.
 Hæmoptysis. †
 Congestion of Lungs.
 7. Grinders' Asthma.
 Miners' Asthma.
 Emphysema.

- III. Four.—1. Glossitis.
 Stomatitis.
 Pharyngitis.
 Oesophagitis. } Not
 2. Gastro Enteritis, } In-
 Entero Colitis, } fan-
 5. Perforation of— } tile.
 6. Congenital.
 Femoral.
 Inguinal.
 Scrotal.
 Umbilical.
 Ventral.
 7. Constipation.
 Obstipation.
 Perityphlitis.
 Typhlitis.
 9. Strict Oesophagus.
 11. Dyspepsia.
 Pyrosis.
 Gastralgia.
 Hæmatemesia.
 Melena.
 14. Gall-stones.
 15. Cirrhosis.

- III. Five.—3. Albuminuria.
 6. Cystirrhœa.
 8. Diuresis.
 Hæmaturia.
 Uremia.
 9. Urethritis.
 10. Orchitis.

- III. Six.—1. Ovarian Tumor.
 2. Hysteritis, Metritis.
 Uterine Ulcer.
 Polypus, Tumor.
 Ovaritis.
 Pelvic Cellulitis.

* Not otherwise placed.

† See Class II, Order Two—3, Sup. List.

CAUSES OF DEATH.

CLASS III.—Local Diseases.—Continued.

TABULAR LIST.

ORDER Seven.—Osseous and Locomotory System.

- III. Seven.—1. Bones, Diseases of . . .
 2. *Joint Diseases** . . .
 3. Vertebrae, Diseases of . . .

ORDER Eight.—Integumentary System.

- III. Eight.—1. Phlegmon† . . .
 2. Ulcer . . .
 3. *Skin Diseases* . . .

ORDER Nine.—Organs of Special Sense.

EYE AND EAR.

- III. Nine.—1. Malignus Oculi . . .
 2. Ophthalmitis . . .
 3. Ossis Petrositis . . .
 4. Otitis . . .

SUPPLEMENTAL LIST.

- III. Seven.—1. Ostitis.
 Periostitis.
 Fragilitas Ossium.
 Mollities Ossium.
 Rickets
 Caries, Necrosis.
 Exostosis.
 2. Synovitis.
 Hip Diseases.
 3. Spine Diseases.
 Spine, Caries and Necrosis.

- III. Eight.—1. Abscess, part not stated.
 Boil.
 Whitlow.
 3. Roseola.
 Urticaria.
 Eczema.
 Herpes
 Pemphigus.
 Ecthyma.
 Impetigo.
 Psoriasis, &c.
 Dermatitis (from burns, &c.).

CLASS IV.—Developmental Diseases.

ORDER One.—Developmental Diseases of Children.

- IV. One.—1. Still-born . . .
 2. Debility, Infantile . . .
 3. Debility, Premature Birth . . .
 4. Cyanosis . . .
 5. Spina Bifida . . .
 6. Other Malformations . . .
 7. Teething . . .
 8. Innutrition . . .

- IV. One.—2. Asthenia.
 4. Atelectasis Pulmonum.
 6. Anus Imperforatus.
 Cleft Palate.
 Idiocy.
 8. Malnutrition.

* Not otherwise placed. † See Class II, Order Two—1, Sup. ‡ See Class I, Order one—10, Sup.

STATISTICAL NOSOLOGY.

CLASS IV.—Developmental Diseases.—Continued.

TABULAR LIST.

ORDER Two.—Developmental Diseases of Women.

- IV. Two.—1. Paramenia
 2. Childbirth*

ORDER Three.—Developmental Diseases of Old People.

- IV. Three.—1. Old Age

ORDER Four.—Diseases of Nutrition. Adolescent and Adult

- IV. Four.—1. Atrophy
 2. Debility

SUPPLEMENTAL LIST.

- IV. Two.—1. Amenorrhœa.
 Chlorosis, †
 Climæteria.
 Menorrhagia.
 2. Miscarriage.
 Abortion.
 Puerperal Mania.
 Puerperal Convulsions.
 Phlegmasia Dolens.
 Cæsarian Operation.
 Extra-uterine Fœtation.
 Flooding.
 Retention of Placenta.
 Presentation of Placenta.
 Deformed Pelvis.
 Mammary Abscess.

- IV. Four.—1. Marasmus.
 Malnutrition.
 2. Asthenia.
 Exhaustion.

CLASS V.—Violent Deaths.

ORDER One.—Accident or Negligence

- V. One.—1. Fractures and Contusions . . .
 2. Wounds, Unspecified . . .
 3. Burns and Scalds . . .
 4. Poison
 5. Drowning
 6. Suffocation
 7. Various

ORDER Two.—Homicide.

ORDER Three.—Suicide.

- V. Three.—1. Wounds, Unspecified . . .
 Wounds, Pistol or Gunshot . . .
 Wounds, Knife
 2. Poison
 3. Drowning
 4. Hanging
 5. Otherwise

- V. One.—1. Railroad and other Accidents.
 5. Lost at Sea.
 6. Asphyxia.
 Strangulation.
 7. Exposure.
 Cold Water.
 Frozen.
 Heat.
 Lightning.
 Surgical Operation.

- V. Two.—1. Infanticide.
 Patricide.
 Matricide.
 Fratricide.
 Filicide, &c.

* See Class I, Order One—22, Tab. List.

† See Class II, Order One—3, Sup.

Suggestions concerning physicians' certificates of death. It should be the endeavor to specify the causes of death as definitely and correctly as possible. It is not unusual to find a return of death with the physician's certificate naming the cause of death "Paralysis," "Paraplegia," "Fits," "Convulsions," "Dropsy," &c., which are merely secondary or consecutive causes, simply symptoms only, or results of some organic lesion or pathological derangement. Sometimes **the alleged cause** is really the *final cause*, as in a case of termination of life by paralysis, but the cause given as paralysis is **not the determining cause**. Apoplexy, or some lesion of the nervous centres, must be the original and determining cause of paralysis, paraplegia, hemiplegia, &c., and the determining cause should be stated as the primary in the return or certificate.

Convulsions are the symptoms or results of some antecedent or concurrent disease. They follow meningitis and other structural lesions of the nervous centres: they also occur from reflex derangement or disturbance of the nervous centres, as in children, from intestinal irritation, or from inflammation, as in gastritis, enteritis, nephritis, &c. In such cases they may be contributory to death, and perhaps, in rare instances, a final cause, by inducing or taking the form of tonic or tetanic spasm. But as contributory, or as a final cause, they are simply concomitant. They should find place as secondary causes only in certificates of death.

"Fits" is too unmeaning a term to be used in any case. The word in a medical sense literally means an attack, an occurrence, or succession of attacks of some physical or mental disturbance, as "fits of sickness," "fits of melancholy, &c.," and is not properly used as synonymous with convulsions from any cause. It would be just as sensible to attribute a death to an "occurrence" or an "attack" as a cause, as to "fits," without other qualifications.

"Dropsy" and "Ascites" have been allowed to stand as determining causes of death because of extended use, and because of the obscurity with which their causes in rare instances are involved. We can scarcely conceive of a dropsical accumulation without antecedent organic or functional disorder, derangement of the absorbent or secretory system, or depravation of the blood. They are left in the tabular list with not a little reluctance. Paralysis is also left in the tabular list for a like reason, and with the same doubt of propriety.

It may be suggested that it is sometimes difficult, and occasionally impossible, to ascertain positively the chief or leading cause of death. The physician last in attendance may find several functional or structural diseases, the morbid conditions multiple and complex,

and not only the initial derangement, but the succession of morbid processes, proximate, consecutive and ultimate, inextricably entangled and lost to discovery.

The careful diagnostician will, however, even then be able to *conceive the probable leading cause*, but, whether or not, he will be able at least to **ascertain the most prominent and controlling lesion or functional derangement then existing**, and which may reasonably be accepted as the primary cause of death.

The preceding remark applies very properly to cases of adventitious diseases which prove fatal, when occurring in individuals already suffering from some chronic disease of slower progress, as when fatal dysentery attacks a consumptive person, or one having chronic nephritis dies from pneumonia. **The acute disease occurring independently of the chronic disease is the chief cause of death**, although the fatal event may have been made more sure by the existence of the antecedent disease, and although the antecedent disease would have ultimately caused death.

In attributing death to scrofula, tuberculosis, tumor, cancer and other generic terms, as causes, **the organic structure or locality where the disease is developed** should always be given, otherwise such terms are very indefinite, and discredit the acquirements of the certifying physician.

The objects desired in presenting the preceding nomenclature of causes of death, and the suggestions following, are to subserve the purpose of greater uniformity in the use of nosological terms, and to promote the accomplishment of entire definiteness, accuracy, and completeness in the physicians' certificates of causes of death.

The State of Rhode Island has a leading reputation for the completeness of its vital statistics. It is not excelled by any State in the Union. With the exception of two or three, there are no States that have approximate completeness of numbers of decedents, and fullness of statements of fact connected therewith. It is hoped that the physicians of Rhode Island will feel a professional and patriotic interest in the further elevation of the reputation of the State as a collector of accurate and complete vital statistics.

THE LAWS OF RHODE ISLAND

IN RELATION TO THE REGISTRATION OF

BIRTHS, MARRIAGES AND DEATHS, AND OF DIVORCE.

PUBLIC STATUTES, CHAPTER 85.

OF THE REGISTRATION OF BIRTHS, DEATHS AND MARRIAGES.

SECTION 1. The town clerks of the several towns, or any person whom the board of aldermen of any city, or the town council of any town may appoint for that purpose, shall obtain, chronologically record and index, as required by the forms prescribed by section three of this chapter, all information concerning births, marriages and deaths occurring among the inhabitants of their respective towns ; and on or before the first Monday in March, annually, shall make duly certified returns thereof to the secretary of the state board of health for the year ending on the thirty-first day of December next preceding, accompanying the same with a list of the persons required by law to make returns to them, who have neglected to do so, and with such remarks relating to the object of this chapter as they may deem important to communicate.

SEC. 2. The secretary of the state board of health shall receive the returns made in pursuance of the preceding section, and annually make a general abstract and report thereof, in form as prescribed by section three of this chapter, and publish not exceeding one thousand copies thereof, and for preparing, tabulating and publishing said annual report the sum of five hundred dollars shall be paid to the state registrar. Said returns, after such report is prepared, shall be deposited in the office of the secretary of state, who shall cause the same to be arranged, full alphabetical indices of all the names to be made, and the whole to be bound in volumes of convenient size and carefully preserved in his office.

SEC. 3. The blank forms required to carry out the provisions of this chapter shall, on application, be furnished by the secretary of the state board of health, to clergymen, physicians, undertakers, town clerks, clerks of meetings of the

Society of Friends, and other persons requiring them, substantially as follows : The record of a birth shall state the date and place of birth, name and sex of the child, whether born alive or still-born, the name and surname, color, occupation, residence and birthplace of the parents, and the time of recording, so far as the same can be ascertained. The record of a marriage shall state the date of the marriage, place, name, residence and official station of the person by whom married, names and surnames of the parties, age, color, occupation and residence of each, condition, that is whether single, widowed or divorced, what marriage, that is whether first, second, third or other marriage, the occupation, birthplace and name of their parents, and the time of recording, so far as the same can be ascertained. The record of deaths shall state the date of death, name and surname of the deceased, the sex, color and condition, whether single or married, age, occupation, place of death, place of birth, names and birthplace of parents, disease or cause of death, and the time of recording, so far as can be ascertained.

SEC. 4. Every meeting of the Society of Friends, clergyman, and all others authorized to join persons in marriage, shall make a faithful record of every such rite performed by them, in manner and form aforesaid, and return the same for the last preceding month, on or before the second Monday of every month, to the town clerk of the town in which such rite shall have been performed ; and no marriage shall be solemnized until the parties shall have signed and delivered to the person about to solemnize it, or to the clerk of a meeting of the Society of Friends, a certificate containing the information required for the record of a marriage, as prescribed by this chapter.

SEC. 5. The town clerk of every town shall annually, in the month of January, collect the information required by this chapter, in relation to all children born in the town during the year ending on the thirty-first day of December next preceding.

SEC. 6. Whenever any person shall die, or any still born child shall be brought forth in this state, the physician attending at such bringing forth or last sickness, if any physician so attended, shall, within forty-eight hours after such death or bringing forth, leave with the family, if any, or person having the care of the deceased, or the person bringing forth such still-born child, or give to the undertaker or person who conducts the funeral a certificate stating, in case of a death, the name of the deceased, the date of the death, and the disease or cause of the death, and in case of the bringing forth of a still-born child, the date and the cause of such child being brought forth still-born.

SEC. 7. Every town council may appoint a sufficient number of persons to act as undertakers, removable at the pleasure of such council.

SEC. 8. No undertaker or other person shall conduct a funeral, or bury or deposit in a tomb, or remove from this state, or otherwise dispose of the remains of any deceased person or still-born child unless he shall first obtain the physician's certificate required by section six of this chapter, if a physician was in attendance upon such person who has deceased, or the person bringing forth such still-born

child, and shall return the same, together with his own certificate of the information required by section three of this chapter, to the town clerk of the town where such death or bringing forth took place.

SEC. 9. Any town may make ordinances more effectually to attain the objects herein contemplated.

SEC. 10. The town clerks, or persons appointed as aforesaid, shall receive for each record of a death made and returned as required by law, and for each record of a marriage made and returned as required by law, twenty cents, to be paid to them out of their respective town treasuries : *Provided*, that the yearly compensation to be paid out of the town treasury as aforesaid, to any one town clerk or person appointed as aforesaid, who shall perform the duties prescribed by this chapter shall not be less than five dollars. Undertakers and others making returns of death as required by section eight of this chapter, shall receive for each full report of a death made to the town clerk, five cents in the cities of Providence and Newport, and ten cents in the other towns of the state.

SEC. 11. Every clergyman, physician, undertaker, town clerk, clerk of any meeting of the Society of Friends, or other person who shall wilfully neglect or refuse to perform any of the duties imposed on or required of him by this chapter, shall be fined not exceeding twenty dollars for each offence, one-half thereof to the use of the town in which the offence shall occur, and one-half thereof to the use of the person who shall complain of the same.

SEC. 12. Every clergyman, physician, coroner, undertaker, or clerk of any meeting of the Society of Friends, shall cause his name and residence to be recorded in the town clerk's office of the town where he resides.

SEC. 13. No letters of administration or letters testamentary shall be granted by any court of probate, upon the estate of any person, until the death of such person, or the facts from which the same is presumed, shall be duly certified, as near as may be, to the town clerk, in order that the same may be duly registered according to the provisions of this chapter.

SEC. 14. The town clerks of the several towns, the city clerk of the city of Newport, and the city registrar of the city of Providence, shall have the custody of all records of births, deaths and marriages of their respective towns, whether made under the statutes now in force or any former statute, and a certificate signed by them, certifying that any written or printed statement of any marriage, birth or death is a true copy of the record in their custody, shall be admitted as evidence of such marriage, birth or death.

SEC. 15. Births, marriages and deaths of non-residents shall be distinguished from those of residents, in the returns, by being arranged separately.

SEC. 16. The secretary of the state board of health may, from time to time, vary the forms of returns, and require such additional information as he may consider necessary to accomplish the object of this chapter.

SEC. 17. The town clerks or other officers appointed under this chapter to collect, record and return the births in the several towns, shall receive fees therefor

as follows : For making record and return of these facts as required by law, twenty cents each for the first fifty entries in each calendar year, and ten cents each for each subsequent entry and return ; to be paid by the town in which the birth is recorded.

SEC. 18. The town clerks of the several towns, or other persons appointed under this chapter to collect the births in the several towns, shall annually in the month of January, collect the facts concerning the births within their respective towns, required by this chapter ; and shall, so far as practicable, at the same time collect the names of all persons liable to be enrolled in the militia, as required by title thirty-four ; and the census of all persons between the ages of five and fifteen years inclusive, as provided by chapter fifty ; and shall receive therefor such compensation as the town council or the board of aldermen of their respective towns or cities shall determine ; *Provided*, that the city of Providence shall be exempt from so much of the provisions of this section as relates to the collection of the statistics of births.

SEC. 19. Blanks for the foregoing purposes shall be furnished, on application therefor, on or before the first day of December in the year preceding, by the state board of health for the collection of births, by the adjutant-general for the taking of the enrolled militia, and by the commissioner of public schools for the census aforesaid.

SEC. 20. The person or persons who shall discharge the duties required by section eighteen of this chapter, if other than the town clerk, shall make full return thereof to the town clerk of his or their town, on or before the tenth day of February next following.

SEC. 21. The returns required to be made by clerks of the supreme court, in relation to divorces, to the secretary of the state board of health, or a prepared abstract thereof, shall be published in the annual report on the births, marriages and deaths in the state.

SYNOPSIS OF THE LAW OF MARRIAGE.

CHAPTER 163, PUBLIC STATUTES.

SECTIONS 1, 2 and 3 show what kindred persons cannot marry, and declare marriages within prohibited degrees null and void.

SECTION 4 makes an exception in favor of Jews, within the degrees of affinity or consanguinity allowed by their religion.

SECTION 5 declares the marriage of persons having a husband or wife living, and of idiots and of lunatics, absolutely void.

SEC. 6. "Any ordained minister or elder of any religious denomination, who shall be *domiciled* in this state, and either justice of the supreme court, may join persons in marriage in any town in the state." (It will be seen that clergymen from other states *cannot* LAWFULLY solemnize marriages in Rhode Island.)

SECTION 7 defines what shall be understood by the term "religious denomination," within the meaning of the preceding section.

SEC. 8. Wardens in the town of New Shoreham may join persons in marriage in said town.

SECTION 9 provides that no minister, elder, magistrate or warden shall join persons in marriage, unless such persons, *if residents of this state*, shall first present (to the clergyman or other person officiating) a certificate properly executed and signed by the town or city clerk or city registrar of the town or city in which *EACH of such persons shall RESPECTIVELY reside*, and *if not residents of this state*, then from the town or city clerk or registrar of *the town or city in which the marriage shall be solemnized*, to the effect that the said town or city clerk or registrar has *duly recorded the intention* of marriage between the parties named in the certificate, the said certificate also setting forth the names and surnames of the parties, the age, color, occupation, birthplace and residence of each, whether either or both have been before married, and, if before married, whether the marriage intended is the first, second, third or other marriage, and also whether the condition of either or both persons previously married is that of a divorced person, and the names, occupation and birthplace of each of their parents; and no town or city clerk or city registrar shall issue such certificate to any minor or person under guardianship, unless the consent in writing of the parent or guardian shall have been first obtained thereto; provided, however, such certificate may be issued to a female over eighteen years of age, who has no parent or guardian living in the United States. (The legal minority of both sexes terminates at the age of twenty-one.)

SECTION 10 provides that every Society of Friends, and *every person* authorized to join persons in marriage *shall certify* upon the certificate required in section nine of this chapter *the time when and the place where* the marriage shall have been solemnized by him, and *SHALL on or before the second Monday of every month*, return the certificate of every marriage solemnized by him during the last preceding month, to the *clerk or registrar* of the TOWN OR CITY *in which such rite shall have been performed*.

SECTION 11 forbids the solemnization of the marriage ceremony, by any person, when lawful objection is made thereto in writing, until such lawful objection be removed.

SECTIONS 12 and 13 provide that any person who shall join persons in marriage without first receiving the certificate required in section nine of this chapter, or otherwise contrary to or in violation of chapter 163 of the Public Statutes, shall be imprisoned not exceeding six months, or fined not exceeding one thousand dollars.

SECTION 14 provides that ALL PERSONS married without duly proceeding as required by chapter 163, shall be fined not exceeding fifty dollars.

SEC. 15. The solemnization of marriage shall be in the presence of two witnesses at least, besides the minister, elder, or magistrate officiating.

SECTION 16 relates to marriage among Quakers or Friends and among Jews, making them valid if in accordance with the forms, rites and ceremonies of the same respectively.

SECTION 17 provides that at least one of the parties to any marriage solemnized according to the manner and form of the Society of Friends, or rites and ceremonies of the Jewish religion shall, before the celebration thereof, sign and deliver to the town or city clerk or city registrar of the town or city in which such marriage is solemnized, the certificate required in section nine.

CHAPTER 167.

OF DIVORCE.

SECTION 1. Divorces from the bond of marriage shall be decreed in case of any marriage originally void or voidable by law, and in case either party is for crime deemed to be or treated as if civilly dead, or, from absence or other circumstances, may be presumed to be naturally dead.

SEC. 2. Divorces shall be decreed for impotency, adultery, extreme cruelty, wilful desertion for five years of either of the parties, or for such desertion for a shorter period of time in the discretion of the court, for continued drunkenness, for neglect or refusal on the part of the husband, being of sufficient ability, to provide necessaries for the subsistence of his wife ; and for any other gross misbehavior and wickedness in either of the parties, repugnant to and in violation of the marriage covenant.

SEC. 3. Whenever it shall appear that the absence, adultery, cruelty, desertion or other cause of complaint, as aforesaid, was committed or occasioned by the collusion of the parties, and done and contrived with an intention to procure a divorce, in such case no divorce shall be decreed.

SEC. 4. Whenever a divorce shall be had for the causes of affinity, consanguinity, impotency, idiocy, lunacy, or crime of either of the parties, the wife shall have restored to her all her lands, tenements and hereditaments ; and a judgment may be passed for a restoration to her of all or such part of the personal estate specifically, or the value thereof, which has come to the husband's hands by virtue of the marriage, as the court from the circumstances of the case shall deem equitable.

SEC. 5. Whenever the divorce shall be occasioned by adultery, or other of the causes aforesaid, done or committed on the part of the wife, the husband shall

hold the personal estate not secured to her by law, forever, and her real estate not secured to her by law, during his natural life, in case they have had issue born alive of her body during the marriage, otherwise during her natural life only, if he shall survive her.

SEC. 6. The court may, in such case, allow the wife for her subsistence so much of her real and personal estate as they shall deem necessary or proper.

SEC. 7. Whenever a divorce is granted for adultery, or crime on the part of the husband, the wife shall be entitled to dower in the same manner as if he were dead, unless the court shall decree alimony, chargeable upon the estate of the husband, instead of such dower.

SEC. 8. Whenever a divorce shall be had for adultery, or for any of the causes aforesaid, done or committed on the part of the husband, the wife shall continue to hold all her property, real and personal, secured to her by law, free from any right in or control over her disposition of the same, either during her life or at her death ; and, if there be no issue living, shall be restored to all other her lands, tenements and hereditaments, if any there be.

SEC. 9. In such case the wife shall also be allowed out of the real or personal estate of the husband, or out of both, such alimony as the court shall think reasonable, not exceeding the use of one moiety of his real estate, during the life of the wife, and the property of one-half of his personal estate, having regard to the personal property which came to the husband by the marriage, and his ability.

SEC. 10. If there be issue living at the time of the divorce, the court, with regard to ordering restoration to the wife of such of her lands, tenements or hereditaments, if any, as may not be secured to her by law, and in regard to the amount of alimony to be allowed to her out of the property of the husband, may do as they shall judge the circumstances of the case may require.

SEC. 11. Divorces from bed, board, and future cohabitation, until the parties be reconciled, may be granted for any of the causes for which by law a divorce from the bond of marriage may be decreed, and for such other causes as may seem to require the same.

SEC. 12. In case of such divorce, the court may assign to the petitioner a separate maintenance out of the estate or property of the husband or wife, as the case may be, in such manner, and of such amount, as they may think necessary or proper.

SEC. 13. Every petition shall be signed by the petitioner, if of sound mind and of legal age to consent to marriage, otherwise upon application to the court, and after notice to the party in whose name the petition shall be filed, the court may allow such petition to be signed by a guardian or next friend.

SEC. 14. All jurisdiction over divorce, alimony, separate maintenance, or the custody, education, and support of the children of persons divorced or petitioning for a divorce, is vested in the supreme court.

SEC. 15. Said court shall have no cognizance of or jurisdiction over any peti-

tion for the same, or either of the same, unless the petitioner shall, at the time of preferring such petition, be a domiciled inhabitant of this state, and have resided therein for the period of one year, next before the preferring of such petition.

SEC. 16. All such petitions shall be filed, heard, and tried in the county in which the petitioner shall reside.

SEC. 17. The said court may, by general rule or otherwise, prescribe the notice to be given, within or without the state, on such petitions, and may issue such process as may be necessary to carry into effect all powers conferred upon them in relation to the same.

SECTIONS 18, 19 and 20 contain provisions in relation to citations to adverse party residing without the state, or in parts unknown.

SEC. 21. Whenever any citation, issued under the provisions of this chapter, shall be served by a disinterested person, such person shall return the same, having made oath thereon of the place where, the time when, and the manner in which he shall have made service of the said citations.

SECTION 22 provides for giving and ensuring proper and sufficient notice to the adverse party.

SEC. 23. The said court is empowered to regulate the custody, and provide for the education, maintenance and support of the children of all persons by them divorced or petitioning for a divorce, and of all persons to whom a separate maintenance may be granted, or who may petition for the same; to make such allowance to the wife, out of the estate of her husband, for the purpose of enabling her to prosecute or defend against any such petition for divorce or separate maintenance, in case she has no property of her own available for such purpose, as they may think reasonable and proper; and to make all necessary orders and decrees concerning the same, and the same at any time to alter, amend and annul for sufficient cause, after notice to the parties interested therein.

SEC. 24. The said court may authorize a married woman to whom a divorce from the bond of marriage is decreed to change her name, with the same rights and liabilities as if her name had not been changed.

SEC. 25. After the filing and during the pendency of any petition under this chapter, the supreme court may, as in equity, make such interlocutory decrees, or grant such temporary injunctions as may be necessary, until a hearing can be had before the court.

CHAPTER 198.

OF DIVORCES.

SECTION 5. The clerks of the supreme court in the several counties shall make returns to the secretary of the state board of health, on or before the first day of

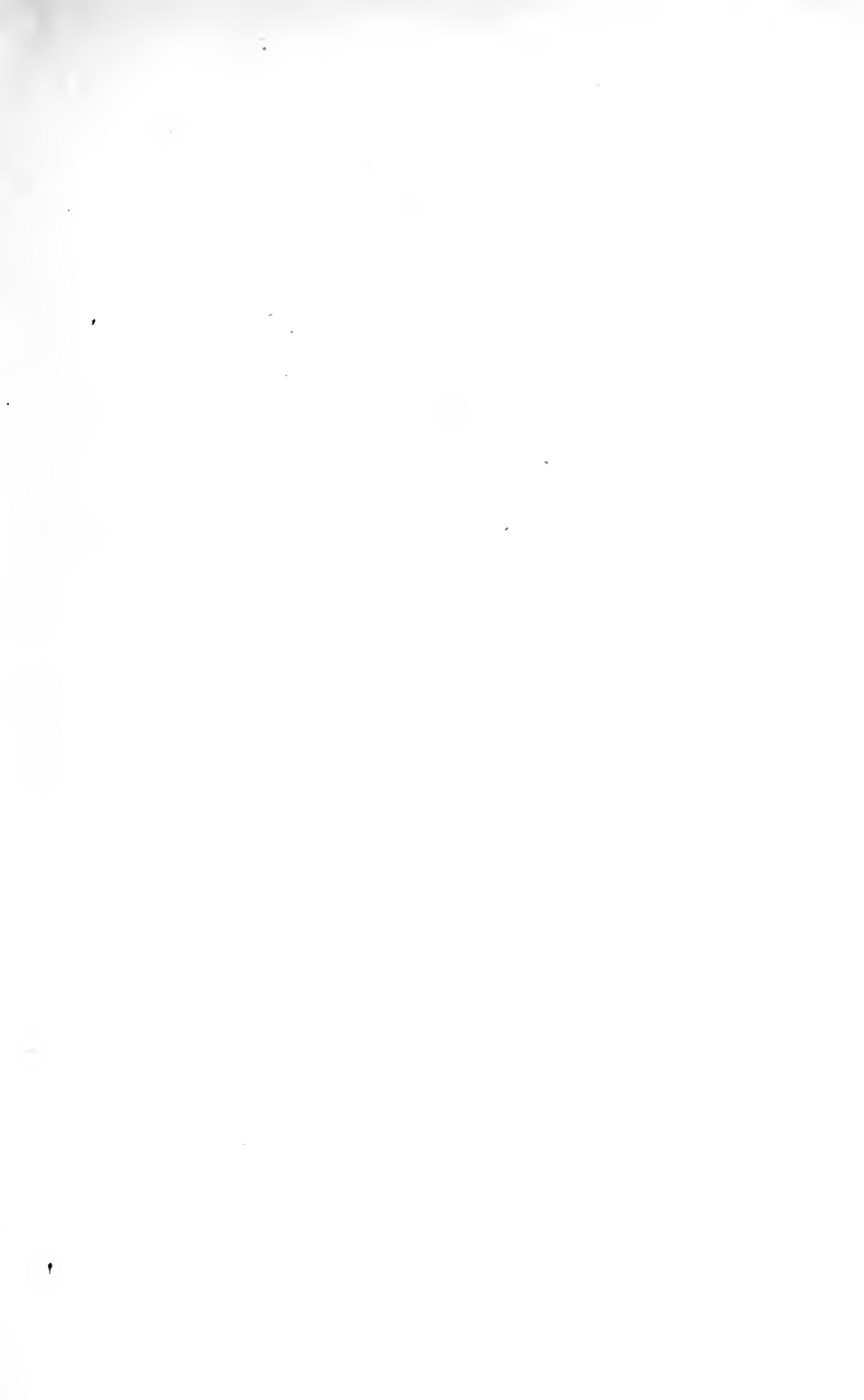
March, in each and every year, for the year ending on the thirty-first day of December preceding, of all the applications for divorce, showing the number, the number granted, and the causes which are given for the application, but without the names of the parties, in accordance with the blanks which shall be furnished them by the secretary of the state board of health.

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